# HISTORY OF DEVELOPMENT OF AIRBORNE COURSES OF INSTRUCTION AT THE QUARTERMASTER SCHOOL, 1947 - 1953

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# QUARTERMASTER AIRBORNE INSTRUCTION:

## A History of the Airborne Courses of Instruction at the U. S. Army Quartermaster School, Fort Lee, Virginia from Their Establishment in 1950 to the End of the Korean War

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## PREFACE

Since the beginning of time, man has looked to the skies for new ideas, but the first recorded recognition of the value of using airborne troops belongs to an American. The wily Benjamin Franklin wrote in 1784, after observing the Montgolfer brothers balloon, "Where is the Prince who can afford to cover his country with troops for its defense as that ten thousand men descending from the clouds might not in many places do an infinite deal of mischief before a force could be brought together to repel them?" The advent of a practical airplane produced a flurry of latter day prophets who saw potential of the aircraft as a combat vehicle and a means of delivering combat troops to the battle zone.

To Joseph - Michel de Montgolfer goes the distinction of being the first to propose supplying a military operation from the air. In 1783, he wrote, "large balloons might be employed in victualling a beseiged town..." However, it was not until World War I that this idea gained a firm hold in U. S. military councils. Thus, the realization of the importance of airborne supply operations came 25 years after the airplane had been accepted as a combat vehicle.

By 1947, after limited use in World War II, air supply had become a recognized phase in army operations. The establishment of the Air Force as a separate Department under the Secretary of Defense in that year created some serious problems for the Army. Previously, the Army had looked to the United States Army Air Forces to conduct airborne supply

operations. Various interservice agreements between the Army and the Air Force called for a continuance of this arrangement. It was soon learned that increased USAF functions made a continuation impossible. Therefore, Army planners began to examine the problem with a view to creating a separate Army capability to support its own airborne supply operations.

By 1950, numerous boards, conferences, panels, ad hoc committees, and study groups had examined the problem of airborne supply operations. As a result, the Department of the Army assigned the Quartermaster Corps major responsibilities in this field. Among the more important functions were training Army personnel in all aspects of parachute packing, maintenance, and aerial delivery techniques; the developing and testing of parachutes, load-bearing platforms, allied equipment, and aerial delivery procedures; and preparing appropriate training literature. In addition, the storing, maintaining, and issuing all types of airborne equipment became a responsibility of the QMC.

Fort Lee became an important center of airborne activity in the Corps. Here all formal airborne courses of instruction were conducted, doctrinal and procedural training literature was written, and many significant item tests took place.

It is not the purpose of this study to examine all of the QMC airborne missions or even all of those performed at Fort Lee. Rather, the scope of this study is restricted to the planning and presenting the airborne courses of instruction at the Quartermaster School from 1950 through

1953. This restriction was arrived at for several reasons. First, it was a logical time frame embracing the courses from their beginning to the end of the Korean War. Second, by 1953, all major problems in this area had arisen and were solved insofar as solutions were possible. Third, by that date the basic framework of instruction had been established with changes only in details since that date. Thus, to continue the study in detail from 1953 would be of little practical value. To fully develop the QMC airborne missions in areas other than training would have produced a voluminous study requiring access to records which are not readily available. Other QMC and Department of the Army agencies interested in the airborne missions of the QMC are discussed only as they relate directly to the training mission or if they enhance the understanding of the study.

A word or two is in order on the method of approach and the source materials used by the writer. For the most part, primary unpublished source materials such as files, letters, memos, speeches, and resumes of telephone conversations, and personal interviews were used in preparing the study. Only in writing Chapter I were secondary sources used. It was the intent of the writer to prepare a detailed and comprehensive account of the development of the courses of instruction using the experiences of those intimately connected with the program either as instructors, as supervisors, or as staff officers. Students were interviewed as well as course planners, administrators, and officers-in-charge.

It is hoped that a detailed and fully-documented narrative of the events attending the establishment of new courses of instruction, aside from whatever contribution it will make to increasing knowledge in this area, will prove valuable to students of the military educational system and to Army Service School planners who may be called upon to establish similar courses of instruction in the future.

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# CHAPTER I

## HISTORICAL BACKGROUND OF AIRBORNE SUPPLY

Man's conquest of the air has lagged far behind his triumph over the land and the seas. Consequently, the use of the air for military purposes is a development of recent origin.

World War I stimulated military interest in the use of military aviation. The military aircraft of that date was used primarily to harass and annoy the enemy. The Army made only limited use of aircraft for tactical bombing missions. Thus, the airplane was conceived to be a tactical weapon of limited use.

In the years following the Treaty of Versailles (1919), England, Russia, and, to a lesser extent, the United States became interested in developing fighter planes and bombers. By 1939 the airplane had to be considered as both a strategic and a tactical weapon as well. During World War II, strategic bombings grew in importance. In 1940, only a few military observers had considered air superiority vital to success but by 1945, no responsible military observer could deny that it had been essential to victory.

Simultaneously, but at a somewhat slower pace, military aircraft were assuming importance in the field of military logistics. This role was

advanced in the late 1930's. Only limited application was made in World War II. Subsequent studies and developments since that time indicate the possibility that it may become one of the most important missions of military aviation. Variously known as "air supply," "aerial resupply," and "airborne supply," the logistical support of combat operations is a major activity of modern air power. It is this function which most concerns the Army Quartermaster Corps.

The first air logistical aspect to be considered by military thinkers was the transporting of troops. The earliest instance of the movement of a body of U. S. troops of any size occurred in 1931. In that year Major General Preston Brown, Commanding General of the Panama Canal Department, transported Battery "B," 2nd FA, from France Field to Rio Hato, Canal Zone, a distance of 90 miles. The number of men transported was small and the distance was short but the event proved that movement by aircraft was feasible.[1]

The following year Captain (later Lieutenant General) George C. Kenney moved an infantry detachment by air during maneuvers at Fort DuPont, Delaware. The detachment was dropped behind "enemy lines." The movement was a complete success.[2]

Britain and Russia were also developing techniques of air transportation and, concurrent with this, they began to devise methods for parachuting troops into combat. The first such instance was reported in 1927 by a Russian officer who parachuted eight soldiers behind "enemy" lines

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[1] Lt Col John T. Ellis, The Airborne Command and Center (Washington: Historical Section, AGF, 1946), p. 1.

[2] Ibid., p. 1.

during maneuvers.[3] The excellent results obtained by this action prompted further activity on the part of the Russians. By 1935, they were dropping large groups of men by parachute. During maneuvers that year, they launched twelve hundred fully-armed soldiers from planes over Kieff (Kiev) airfield.[4]

Germany developed processes for the parachuting of troops in the 1930's; and in 1938, airborne troops of that nation saw their first action. On March 12, 1938, during the invasion of Austria, German parachutists occupied the perimeter of Wagram aerodrome. This small force was followed by 37 transport planes which carried a battalion of soldiers.[5] Other transports conveyed artillery and equipment.

By the outbreak of World War II, processes for transporting large groups of men and materiel by air and methods of parachuting troops behind enemy positions had been evolved. In 1939, Germany had at least three regiments of parachutists, Russia had large numbers of experienced paratroopers, while England, France, and the United States lagged far behind.[6]

The rapid events of a great conflict were soon to focus more attention on airborne operations. In 1939, the Russians used large numbers of troops in their campaign against Finland. During the great German drive of May 1940, paratroops were instrumental in conquering Holland and Belgium. The strong Belgian fortress of Eben-Emael fell victim to airborne troops. These actions quickly convinced military leaders throughout the world that

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[3] Archibald M. Low, Parachutes in Peace and War (London: John Gifford, Ltd., 1942), p. 129.

[4] Ibid., p. 130.

[5] Maj F. O. Miksche, Paratroops (New York: Random House, 1943), p. 20.

[6] Ibid., p. 18.

airborne operations were of great importance in battle. Before the outbreak of hostilities, it had been conceded "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."[7] Large-scale operations early in the war indicated that airborne forces could effectively wage full-scale operations. If further proof were needed, the successful German air invasion of Crete in May 1941, provided it.[8]

Despite some early experiments in movement by air, the United States had taken no concrete action toward the establishment of an airborne or parachute school before World War II. Then, in the fall of 1939, when war had already begun abroad, the Chief of Infantry, Chief of Engineers, and Chief of Army Air Corps met jointly to work out the problem of which arm or service would assume responsibility for a contemplated detachment of air infantry. They decided that the training and control of air infantry was to be under the supervision of the Chief of Infantry. Soon after this meeting on 25 April 1940, the War Department granted permission for the establishment of a test platoon of parachute troops. The platoon became a reality at Fort Benning, Georgia, exactly two months later. From this humble beginning, there developed five airborne divisions, six separate airborne regiments, and four separate airborne battalions which the

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[7] Ellis, Airborne Command, pp. 1-2.

[8] Ibid., p. 5. Lt Col Ellis calls the action at Crete "probably the greatest single impetus to airborne development and expansion."

United States sent into action during World War II.[9]

In rapid succession, five important milestones in parachute training occurred after the establishment of the first test platoon. On 16 August the test platoon made its first jump. Thirteen days later the entire platoon made a mass jump. On 16 September 1940, the War Department directed the activation of a parachute infantry battalion. On 2 October 1940, the 501st Parachute Battalion was formed at Fort Benning as a result of War Department authorization. On 10 July 1941, the Infantry School at Fort Benning established a parachute section to train parachutists.

Throughout the war the training of paratroopers remained a mission of the Infantry School at Fort Benning. On 15 May 1942, the Parachute Section became a completely independent organization and was designated as the Parachute School. Then, on 1 January 1946, after the cessation of hostilities, it was renamed the Airborne School. The independent Airborne School was discontinued on 1 November of the same year when it was reincorporated into the Infantry School.[10] From 1946 until the present, the Infantry School at Fort Benning has retained the mission of parachute jump training.

The course of instruction offered the first students at the Parachute Section consisted of tough infantry training, jump training, and parachute maintenance. The maintenance phase of the training included folding, pack-

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[9] A good brief summary of early airborne training, compiled by an Army officer, is found in Ellis, Airborne Command, pp. 1-26. Much of the material in the preceding paragraph and the following two paragraphs is based on material found in this monograph.

[10] The Army Almanac (Washington: U. S. Government Printing Office, 1950), p. 261.



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ing, inspection, and repair of parachutes.[11] The course of instruction, with minor revisions, remained constant throughout the period of hostilities although separate courses were established in communication, parachute rigging, and related fields. The major change occurred in the size of the school. From the initial small size of one test battalion in 1940, the training of paratroopers grew until at the height of the airborne effort, the Parachute School graduated 1,250 students per week in the jumping courses alone. Additional students were graduated from the demolition, rigger, communications, and jump-master courses. By 1 September 1945 more than 90,000 students had graduated from the parachute-jumping course.[12] Graduates of this course were assigned to the 13th, 17th, 82d, and 101st Airborne Divisions and saw combat duty in Europe and with the 11th Airborne Division in the Pacific Theater.[13]

The training of paratroopers necessitated instruction in folding, packing, and repairing parachutes. This caused the formation of a course on packing and maintenance. In a sense, this was a post-graduate course to the main parachute jump training. The scope of the rigger training program was described in these words: "At the riggers school the men are trained as specialist maintenance personnel to inspect and to repair parachute equipment and to build new types of rigging, parachute containers, and harness for special use."[14] At the end of the war, the Riggers Course

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[11] Ellis, Airborne Command, p. 9.

[12] The Army Almanac, p. 261.

[13] Ibid., pp. 586-590.

[14] Anon., The Story of the Airborne Command and the I Troop Carrier Command (n.p.: prepared for the combined Airborne-Troop Carrier Command Maneuvers, n.d.), p. 10.

continued to be given, along with the Parachute Course (Basic Airborne Course), at the Infantry School until mid-1951. However, the number of graduates were much smaller than for the wartime classes. In 1948, the eight-week Parachute Rigger Course had a class capacity of 27 enlisted students and a yearly output of only 66 graduates.[15]

Although the parachute training offered during the war was excellent, it became apparent that there were serious weaknesses in airborne operations. Troops parachuted behind enemy lines, or cut off by hostile action, needed to be resupplied by friendly aircraft. Thus, aerial supply and resupply became important aspects of a successful airborne operation. These aspects did not keep pace during the war years with developments in paratrooper training. An authority on air supply, writing in 1949, described the situation in the following manner:

Aerial delivery systems in cargo aircraft are rather new. Thirty years ago, in the days of piano wire and canvas airplanes, the only way to deliver cargo by air was to throw it over the side of the airplane, with or without a parachute attached. The limitations of this system are obvious. During the 1920s and 1930s when the aircraft industry was developing rapidly, comparatively little was done to develop an adequate aerial delivery system for cargo, mainly because there was no apparent need for one. However, the need suddenly developed, although on a small scale initially. It began when the Army began to experiment seriously with parachute troops and realized that it also had to keep them supplied. The early parachutist operated on a shoe-string. The only equipment and supplies that he had, he either carried into action on his person or received in one of two 200- to 300-pound capacity aerial delivery containers which were ejected through the same door from which he jumped. As the airborne idea caught on in the Army and more and more parachutists were trained, steps were taken to remedy the problem of supplying them from the air.

The airplane most used by airborne troops during World War II for training and combat was the C-47. Equipping this airplane with an aerial delivery system proved to be relatively simple. Bomber aircraft were already

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[15] The Army Almanac, p. 381.

using electrically activated bomb release mechanisms. The aerial delivery system as adapted to the C-47 airplane consisted of six external pararacks mounted in pairs underneath the fuselage. They were electrically activated from a jump-master control panel mounted near the parachute exit of the airplane. The loads could be released singly or all six at once by the jumpmaster (or the pilot, who used a salvo release switch in the cockpit.) An identical system was used for the C-46 airplane upon its adoption by troop-carrier units. The maximum load that could be released from this system was six 300-pound equipment containers. These containers had to be of a certain shape, usually cylindrical and elongated. Their weight averaged 75 to 100 pounds empty and they measured approximately 60 inches in length and 20 inches in diameter. Square, bulky, or odd-shaped containers were difficult to attach to the external pararacks and, once attached, made the airplane difficult to handle; therefore, those types of containers were ejected through the parachute exit as door loads. The heaviest load dropped during World War II from a C-47 airplane was the 75mm Pack Howitzer, the basic weapon of the parachute Field Artillery battalion. This weapon was broken down into seven main loads consisting of the front trail, rear trail and axle, recoil and bottom sleigh, top sleigh and cradle, tube, breechblock and sight, and the wheels. In addition, 18 rounds of ammunition in two additional containers were part of the load. This equipment weighed 2,670 pounds. This, added to the 2,400 pounds weight of a ten-man stick of troopers, brought the total weight close to the maximum for medium distance operations. Of these loads, six were dropped from the racks, the remaining three ejected from the parachute exit.[16]

As this indicates, the limits on size, shape and weight of cargo to be dropped were rigidly defined and limited. As late as 1943, a U.S. officer of the airborne command wrote that dropping of heavy equipment was impractical and would seldom be required. He stated, "It is anticipated that only on rare instances other than in operations of airborne troops will it become necessary to drop heavy equipment by parachute. However, as a guide to procedure in dropping heavy equipment, a description is given here of a method used in dropping the 75-mm pack Howitzer by

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16 Capt Roman W. Maire, "Airborne Cargo," The Infantry Journal (Washington, 1949), LXIV, No. 2, pp. 11-12. The 300-pound equipment containers are not to be confused with the A-Series containers developed later which weighed considerably less than 75 to 100 pounds empty.

parachute."[17] This was followed by an account of the procedure used in dropping the howitzer. The weapon was disassembled in six loads of 416 lbs., 121 lbs., 221 lbs., 277 lbs., 155 lbs., and 203 lbs. respectively. Two of the loads were ejected manually and four were released automatically.

There were many disadvantages in this method. The two most serious of these were, first, the six parts of the disassembled howitzer might be scattered over a wide area and, second, they had to be reassembled before the weapon could be used.

In order to work toward a solution of these problems, as well as to find the answers to other questions such as the coordination of airborne training and liaison with the Air Corps, the Airborne Command had been established on 21 March 1942.[18] On 9 April 1942, the location of the Airborne Command was moved from Fort Benning, Georgia, to Fort Bragg, North Carolina.

The Airborne Command tested procedures of air supply at the Desert Training Center, California, as well as at Fort Bragg. It also was largely responsible for the opening of Camp Mackall, North Carolina, and the training of many airborne units. One of the important long-range accomplishments of the Airborne Command was the completion of the draft of FM 30-40, "Supply of Ground Units by Air." Although the material in this manual was quickly outdated it was important because it was the first study devoted exclusively to the techniques of air supply.[19] This was followed by several

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[17] Capt. F. DeVere Smith, The Airborne Command, Fort Bragg, N.C. (Camp Lee: The Quartermaster School, 1943), p. 34.

[18] Ellis, Airborne Command, p. 14. Other material on the early activities of the Airborne Command will be found on pp. 13-32, loc. cit.

[19] Ibid., p. 22.

other publications and training aids on airborne subjects.

The development of doctrine and technique of air supply by the Airborne Command (after 1 March 1944 the Airborne Center)[20] was rapid throughout the war. It had to be to keep up with the increasing demands made for cargo delivery by air. An indication of the emphasis placed on air freight is shown by the higher percentage of cargo aircraft purchased by the Army Air Corps. In the four years from 1936 to 1939 less than 4 percent of the aircraft purchased was of the cargo-carrying type but in 1944 and 1945, at the height of the Air Corps expansion, this had increased to nearly 14 percent.[21] Before the cessation of hostilities, large-scale delivery of supplies by parachute and free-drop had occurred in several combat areas.

In Europe in the days following "D-Day," plans for air supply of troops took on the aspect of a major operation. This was particularly true in the supplying of food, fuel, and ammunition by parachute and free fall. During Operation Market, an air operation conducted in the vicinity of Arnhem, Holland, in September 1944, the following quantities of goods were dropped to two airborne divisions:

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[20] Ibid., p. 27.

[21] U. S. Air University, Air Resupply (Maxwell Field, Ala: Air University, 1946), pp. 4-5. The figures, based on those found in Air Resupply, are as follows:

1936-1939: 2,407 aircraft accepted of which 91 were cargo-type giving a figure of 3.7+ percent.

1944-1945: 100,493 aircraft accepted of which 13,699 were cargo-type giving a figure of 13.6+ percent.

82d Airborne Division:

| | Aircraft Dispatched | Type Aircraft | Aircraft Dropping | Tons Dropped | Tons Recovered | Percent Recovered |
|---|---|---|---|---|---|---|
| D ≠ 1 | 131 | B-24 | 127 | 258 | 154.8 | 60.0 |
| D ≠ 2 | 60 | C-47 | 36 | 43 | 8.6 | 20.0 |
| D ≠ 3 | 317 | C-47 | 311 | 441 | 352.8 | 80.0 |
| Totals | 508 | | 474 | 742 | 516.2 | |

101st Airborne Division:

| | Aircraft Dispatched | Type Aircraft | Aircraft Dropping | Tons Dropped | Tons Recovered | Percent Recovered |
|---|---|---|---|---|---|---|
| D ≠ 1 | 121 | B-24 | 119 | 238 | 95.2 | 40.0 |
| D ≠ 2 | 35 | C-47 | 35 | 47 | 14.6 | 31.0 |
| Totals | 156 | | 154 | 285 | 109.8 | |

[22]

In the China-Burma-India Theater of Operations, air supply was even more important since several units were entirely cut off from other contact with their allies. The Joint Intelligence Collecting Agency reported in July 1944, that there were twenty-eight units in Burma dependent upon air operations for the major portion of their supplies. These units included Chinese, Indian, British, and American troops, as well as Burmese refugee camps.[23] The items dropped were small and the condition of air supply was primitive in comparison with present day methods. In fact, the largest canopy reported in use in Burma at that time was twenty-eight feet in diameter.[24] Another observer in the same theater of operations

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[22] Anon., Supply by Air, France, Belgium, Holland (Hqs, IX Troop Carrier Command, APO 133, U. S. Army, 1944), p. 5.

[23] Joint Intelligence Collecting Agency, Air Supply Dropping Into Burma (New Delhi, India: JICA, 1944), p. 3. This is a report dated 15 Jul 44.

[24] Ibid., p. 14.

reported at the time on the type of items that were delivered by air:

The bulk of Air Dropping consists of rations, forage, ammunition and P.O.L. The types of rations dropped are numerous. They are: American, B, C, K, Mountain, 10-1 Rations, Chinese BT, IT, V-Force, Porter, Kachin, Wingate Stillwell, Refugee and animal. All types of ammunition for small arms and larger caliber gun up to 155 M. M. /millimeter/ are air dropped. All the above items are stocked in the Air Dropping warehouses at each airfield and a substantial amount is always on hand already packed for immediate drop.[25]

By the time fighting ended in 1945, the machinery for both airborne training and aerial supply had been developed and refined to a degree which could not have been imagined five years before. The physical plant for airborne training consisted of the Parachute School at Fort Benning, Georgia which was the Army's source for trained parachutists, jumpmasters, communications men, and riggers.[26] Also included was the Airborne Center, Fort Bragg, North Carolina, whose mission was to train airborne units and to test air supply methods and procedures. This testing agency, known as the Airborne Board during the latter stages of the war, was redesignated the Airborne Service Test Section, Army Ground Forces Board No. 1, on 1 October 1945.[27] Still later, in 1948, when Army Ground Forces Board No. 1 was renamed Army Field Forces Board No. 1, the Airborne Service Test Section remained an important part of the organization.[28] In 1950, the XVIII Airborne Corps was reactivated along with several

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[25] Abbott E. Dodge, History of Air Dropping in the India-Burma Theater (undated, probably written in 1945), p. 7.

[26] The Army Almanac, p. 261.

[27] Ellis, Airborne Command, p. 69.

[28] The Army Almanac, pp. 264, 282, 285.

airborne divisions and independent units. These units were an additional source of riggers and parachute maintenance men.

In spite of drastic disarmament and demobilization policies following the war, real progress was accomplished in the field of air operations. The requirement for an operational airborne force capable of executing major air supply operations was graphically demonstrated by the "Berlin Airlift" when, from the fall of 1948 to the spring of 1949, a huge city was supplied with food, fuel, and other items by air. This operation provided irrefutable evidence of the enormous potential of air supply by showing that enormous quantities of supplies could be moved by air on tight schedules.

A series of maneuvers and field exercises were held between 1946-1953 which tested air items under varying conditions, and, in some cases, checked the practicability of various drop techniques. The most important of these maneuvers and exercises from the standpoint of airborne history were the following:

| Exercise | Date | Location |
|---|---|---|
| TASK FORCE FRIGID | October 1946-April 1947 | Ladd Field, Alaska |
| SNOWDROP | November 1947-February 1948 | Pine Camp, New York |
| YUKON | November 1947-January 1948 | Fairbanks, Alaska |
| PORTREX | February-March 1950 | Viegues Island, Puerto Rico |
| SWARMER | April-May 1950 | Camp Mackall, Fort Bragg, N. C. |
| SOUTHERN PINE | July-August 1951 | Fort Bragg, N. C. |
| SNOWFALL | December 1951-February 1952 | Camp Drum, New York |
| LONG HORN | March-April 1952 | Fort Hood, Texas |

As a consequence of these constant efforts real progress was made in air supply after 1945. So much so that the editors of The Infantry Journal could comment in 1950 that--

In the years since VE-day the ability of airborne units to establish and maintain an airhead has visibly improved. Perhaps the biggest development has been in the air-dropping of heavy equipment. If some Rip Van Winkle who was acquainted with the capabilities and limitations of our airborne divisions in 1945 was reawakened at Swarmer after five years of sleep he would have been amazed. The two critical needs of paratroopers - transportation, and artillery up to 155 mm gun are now available to them. Actually that isn't quite true; the 155 mm gun hasn't yet been dropped by parachute but it was flown in and air-landed at Swarmer. But 105 mm howitzers and 90 mm AT guns can be dropped. The 105 has been dropped so often that it is now standardized. A jeep is used for the prime mover. The 90 mm AT gun has been dropped, using three parachutes, but it wasn't available at Swarmer. Jeeps and three-quarter-ton trucks are dropped, and this is used as the prime mover for the 90.[29]

At the end of World War II, the Army was faced with the problem of efficiently utilizing and further developing the potential tactical, strategical, and logistical capabilities of its air arm. This mission, complex enough in itself, was enormously increased by the National Security Act of 1947. This legislation required delineation of the exact responsibilities of the Army and the newly-created Air Force in the field of air logistics.

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[29] "You and Your Journal," The Infantry Journal, LXVI, No. 6, p. 7.

## CHAPTER II

## THE QUARTERMASTER CORPS RECEIVES AN AIRBORNE MISSION

The National Security Act of 1947 (Public Law 253, 80th Congress) was one of the most important pieces of legislation in United States military history. It completely changed the organization of the military establishment of the Nation--

> by providing for a Secretary of Defense; for a National Military Establishment; for a Department of the Army, a Department of the Navy, and Department of the Air Force; and for the coordination of the activities of the National Military Establishment with other departments and agencies of the Government concerned with the national security.[1]

By removing the Air Force from under the control of the Army and placing it in an independent status, the National Security Act of 1947 created a host of problems relative to airborne training. Before 1947 the Army Air Force was both a combat arm and a technical service of the Army. There was little question that the combat functions of the Air Force could be separated from the Army without serious difficulty. The

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[1] National Security Act of 1947 (Public Law 253, 80th Congress approved 26 Jul 47) War Dept Bul No. 11, Washington 25, D. C., 31 Jul 47, Sec 1.

clarification of the technical service mission, however, presented serious problems.

As an Army Technical Service, the Army Air Force has the mission of supplying the Army with air-type items of equipment. This also included the procurement, storage, and issue of Air Force equipment and supplies and responsibility for the research and development of air-type equipment and the purchase of acceptable items. After purchase, the Army Air Force was charged with the supervision, operation, and maintenance of this equipment and of air supply. For this reason, the Army Air Force maintained organizations, units, personnel, and training facilities. It also provided the money and defended that portion of the Army budget relating to air logistical programs.

Thus, the Army Air Force was the agency which handled all air items necessary for the functioning of the air supply program. The passage of the National Security Act of 1947 immediately raised the question as to what department would assume these responsibilities.

The matter was further complicated by the increased Army interest in the air supply of ground troops as a result of World War II experiences. A second big question, therefore, was who would be responsible for the operation of this supply system? This question embraced the entire field of air supply and raised a number of lesser questions. For example, who would select and train the personnel involved? Who would be answerable for the packing of parachutes and the development of devices for equipment and supply drops? Which Department would prepare the necessary technical publications and disseminate information pertinent to air supply?

On the same date as the passage of the National Security Act of 1947, the President signed Executive Order 9877, Functions of the Armed Forces. This assigned the primary functions and responsibilities of the Armed Forces of the United States under the Act. Portions of this Executive Order were of particular interest to those concerned with the problem of air supply:

Section II - Functions of the United States Army

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2. To develop weapons, tactics, technique, organization and equipment of Army combat and service elements, coordinating with the Navy and the Air Force in all aspects of joint concern, including those which pertain to amphibious and airborne operations.

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4. To assist the Navy and Air Force in the accomplishment of their missions, including the provision of common services and supplies as determined by proper authority.

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Section IV - Functions of the United States Air Force

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2. To develop weapons, tactics, technique, organization and equipment of Air Force combat and service elements, coordinating with the Army and Navy on all aspects of joint concern, including those which pertain to amphibious and airborne operations.

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4. To provide the means for coordination of air defense among all services.

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5. To assist the Army and Navy in accomplishment of their missions, including the provision of common services and supplies as determined by proper authority.[2]

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These terse functional statements provided the basis for more detailed agreements between the Army and the Air Force. For two and one-half years afterwards, a number of committees, panels, boards, and conferences consisting of Army and Air Force officials met to delineate the responsibilities of each service. A series of published joint regulations and agreements resulted which served as the framework for mutual cooperation in the field of air-type items and air supply. Eleven of these meetings were significant enough to be discussed.

Joint Army-Air Force Adjustment Regulations No. 4-11-1, Maintenance: Administrative Provisions to Govern Maintenance Activities published on 23 July 1948 directed that base maintenance of items would be the responsibility of the Department charged with procuring them. Since the Air Force was the agency responsible for procuring parachutes, it would perform base maintenance on them and plan the budget for the expenses involved. On the installation level, and below, this responsibility would be assigned to the using Department. This meant that when parachutes were issued to an Army airborne unit it became the responsibility of that unit to maintain them properly.

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[2] Executive Order 9877: Functions of the Armed Forces (approved 26 Jul 47) War Dept Bul No. 12, Washington 25, D. C., 1 Aug 47. Portions quoted are Sec II, pars 2 and 4, and Sec IV, pars 2, 4, and 5.

One of the most important policies in this area between 1947 and 1950 was the Department of the Air Force and Office of The Quartermaster General Agreement on the Division of Stocks and Distribution of Supplies which was announced on 28 December 1948.[3] This agreement designated which supplies and items of equipment would be the responsibility of the Quartermaster Corps, and which would be the responsibility of the Department of the Air Force. It also established a mutual accounting and reporting service between the Army and the Air Force and a plan for funding of items purchased, stored, and issued by one Department for the benefit of the other. An important feature of the agreement was that the Department of the Army was to provide Quartermaster services and facilities for depot storage and issue of Quartermaster stocks credited to the Department of the Air Force. This was to remain in effect only until such time as the Air Force was prepared to assume storage and issue responsibility.

On 6 April 1949, the publication of Joint Army-Air Force Adjustment Regulations (JAAFAR) No. 1-11-57, Organization: Transfer of Quartermaster Functions, carried the policies of the agreement of 28 December 1948 a step further. By this regulation, the Secretary of Defense granted the Air Force authority to establish a quartermaster function for items peculiar to that Department. Furthermore, the Air Force was authorized to utilize

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[3] Quoted in Ad Hoc Committee, Report of a Department of the Army OQMG Ad Hoc Committee on the Problem of Quartermaster Support of Airborne Operations (Washington, D. C.: OQMG 1950), pp. 4-5. This document will be hereafter cited as Ad Hoc Committee Report.

Army Quartermaster services, technical staff assistance, and research and development activities in this program

This regulation was followed in the next seven months by three others which further clarified the relationship between the Air Force and the Quartermaster Corps regarding air supply. In May 1949, JAAFAR 4-11-2, Maintenance: Administrative Provisions to Govern Field Maintenance Activities for Army Aircraft and Related Items of Equipment transferred to the Department of the Army the responsibility for maintenance of its liaison aircraft and related items. Later in 1949, the Department of the Army published T/O&E 10-337, Airborne Quartermaster Parachute Maintenance Company. This air-type maintenance unit was redesignated from Infantry T/O&E 7-27T, Parachute Maintenance Company. The third regulation was AR 95-5, Flying: Army Aviation - General Provisions, published on 15 November 1949, which delegated to the various Technical Services Chiefs responsibilities peculiar to their services in the Army Aviation Program.

More important than these three regulations in establishing a working relationship between the Air Force and the Quartermaster Corps was Joint Chiefs of Staff Memo 2017/3, 23 November 1949.[4] This decision granted each military department authority to maintain and operate its own supply system in time of war. It further provided for cross-servicing of supplies and equipment at any level. The purpose of this agreement was to establish a basis for complete cooperation in the event of war.

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[4] Ad Hoc Committee Report, p. 3.

As a result of the JCS decision, the Army published Special Regulations 700-50-200, Supplies and Equipment - General: Assignment of Certain Responsibilities to Heads of Technical Services for Items of Air Force Supply on 3 January 1950 which allocated responsibilities to the various Army technical services for certain items of Air Force supply. The technical services concerned were made responsible for the provision of funds, computation of requirements for supplies, and coordination with the Air Force on matters of purchase, storage, maintenance, and issue of these items. It delegated to the heads of the technical services responsibility for overall control levels for air items assigned to their jurisdiction.

In March 1950, the Quartermaster Corps received an additional responsibility relative to air supply. On 7 March the Organization and Training Division, Department of the Army General Staff assigned the QMC responsibility for crating and packaging of airlift cargo, packaging of air drop cargo, and repacking of cargo parachutes.[5]

Somewhat later the Assistant Chief of Staff, G-3, United States Army General Staff directed that the training of parachute riggers and repairmen would continue to be a responsibility of the Commanding General, Infantry Center, Fort Benning, Georgia and Airborne Quartermaster Parachute Maintenance Companies (T/O&E 10-337) would be the responsibility of the Commander of the Division to which they were assigned.[6]

The total ramifications of these regulations and agreements were many and far-reaching. The Air Force received logistical autonomy commensurate with that of the Army. At the same time, the basic principles of

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[5] Ibid., p. 7.

[6] Ibid., p. 6. This DF Comment is undated in the Ad Hoc Committee Report but probably was written between 1 Aug 49, the date of SR 310-30-1, and 15 Nov 49 when AR 95-5 appeared.

unification were followed by avoiding duplication in purchasing, storage, issue, and maintenance of air-type items wherever possible. The Chiefs of the Army Technical Services received certain missions. One such mission was the responsibility for obtaining the supply of air items and for the training of certain personnel in conjunction with the logistical service which the Air Force had agreed to provide the Army. Another task was to perform the conventional technical staff functions relative to air items required by the Army. This was to be accomplished despite the fact thatthe Air Force retained control of some of the operational features normally required for accomplishment of the mission. Both Air Force and Army personnel involved in logistical cooperation between the Departments were made aware of the need for mutual agreement in one area. This area was indicated in JAAFAR 4-11-1, which ordered that depot, or base, maintenance would be performed by the procuring agency except for "specific items" which were maintained by one Department or the other by mutual agreement. Thus, the Quartermaster Corps as the principal agency of the Army concerned with the supplying of air-type items became one of the principal Army agencies concerned with airborne logistics.[7] Although considerable progress was made in prescribing the methods of logistical cooperation between the Department of the Army and Department of the Air Force from mid-1947 to early 1950 several flaws were apparent. These weaknesses may be grouped under two large headings--budgetary and cross-servicing. The first of these involved problems not foreseen in the funding of air-type items. The second,

[7]Paraphrased from Ad Hoc Committee Report, pp. 7-8.

which was to have more influence on the history of airborne training at Fort Lee,[8] was concerned with questions on the actual storage, maintenance, and issue of air-type items. To be exact, there were four large problems which belonged in this category. Each included several lesser considerations.

The Air Force supply and maintenance support to the Army proved inadequate to meet the needs of Army Airborne Divisions. This was especially true of those items or services which were exclusively or predominantly required by Army airborne troops. The processes involved in guaranteeing the supply of critical equipment (parachutes and related items) to the Army in wartime were not clearly defined. Included in this were the lesser questions concerning field and depot maintenance, storage, and issue of items in support of airborne operations, and responsibility for equipment used for training. In addition, there was no provision for the establishment of units within the Army for various types of air supply duties. Organizations were needed to handle air supply for Airborne, Armored, and Infantry units. They would have to be elastic enough to manage a variety of airborne operations such as packing, crating, and loading for air movement; air landing of supplies; parachute and free fall of supplies; and supply control and documentation.

The organization of the Air Force did not lend itself to easily accomplishing the support of the Army. Air Force supply and maintenance installations were too widely dispersed to serve Army needs adequately. The tactical missions of the Air Force required a considerably different

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[8] Fort Lee was Camp Lee until redesignated a permanent military installation on 15 Apr 50 (DA GO 13, Sec 3, 15 Apr 50). For the purpose of consistency, the title Fort Lee will be used throughout this study except when direct quotations are given.

type of support organization than for the Army.[9]

These problems made imperative a study of the relationship of the Army in airborne operations. Since the duties of supply and maintenance were the primary concern of the Army Quartermaster Corps, the Department of the Army assigned the study to that technical service. On 6 March 1950, The Quartermaster General directed than an Ad Hoc Committee be convened to consider the problem of Quartermaster support of airborne operations.[10]

The committee consisted of seventeen members, including three general officers, eight field grade officers, three company grade officers, and three civilians.[11]

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[9] Paraphrased from Ad Hoc Committee Report, pp. 8-9.

[10] Ibid., Memo, TQMG preceding p. i.

[11] The membership of the committee was as follows:
Maj Gen W. H. Middleswart, OQMG, Chief Military Planning Division
Maj Gen R. C. L. Graham, Commanding General, Camp Lee, Va.
Brig Gen Andrew D. Hopping, OQMG, Chief, Supply Division
Col Charles G. Calloway, OQMG, Chief, Training Branch, Personnel and Training Division
Col Coleman Romain, OQMG, Chief, Field Service Division
Lt Col Herbert I. Stern, G-4 Section, Hq, Army Field Forces, Fort Monroe, Va.
Lt Col J. L. Dewitt, Jr., G-3 Section, Headquarters, Army Field Forces, Ft Monroe, Virginia, Committee Advisor
Lt Col Robert L. Ashworth, OCAFF Project Officer, Wright-Patterson Air Force Base, Dayton, Ohio, Committee Advisor
Maj Harlan W. Hendrick, QM, 82d Airborne Division, Fort Bragg, N.C.
Maj Charles S. Cumings, Office of Assistant Chief of Staff, G-3, Department of the Army
Capt Carl W. Kappel, Parachute Maintenance Company, 11th Airborne Division, Camp Campbell, Ky.
Capt James E. Neel, Parachute Maintenance Company, 11th Airborne Division, Camp Campbell, Ky.
Capt Raymond T. Smith, Parachute Maintenance Officer, 82d Airborne Division, Fort Bragg, N. C.
Dr. George W. Malloy, Chief, Planning Office, Supply Division, OQMG
Mr. R. C. McKechnie, Chief, Organization and Allowances Section, Planning Branch, Military Planning Division, OQMG
Mr. R. A. Norris, Packaging Technologist, QM Food and Container Institute for the Armed Forces, Chicago, Ill.
Maj Harold L. Dorsett, Planning Branch, Military Planning Division, OQMG, Recorder

The members were selected for the committee on the basis of experience in Quartermaster Corps planning, training, and supply activities. The group also contained officers qualified in parachute maintenance and air supply. A wide cross-section of the Quartermaster Corps was included in the group. Before it met for the first time to hear the testimony of witnesses on 20 March 1950,[12] a great deal of pre-planning had been accomplished by Major Harold L. Dorsett, Recorder of the Committee.[13] Preparatory work consisted of the assembling of pertinent data on airborne training and air supply.

The work of the Committee was organized in three major phases. First, several witnesses were called and asked to give testimony on air operations. Second, the Chairman divided the Committee into five subcommittees which met separately and reached certain conclusions and recommendations. And last, the Committee sat as a whole for discussion, and at that time they composed a final list of conclusions and recommendations.

Twenty-five witnesses gave testimony in person, in written message, or by telephonic conversation with members of the committee. The list of witnesses included eight general officers, ten field grade officers, one company grade officer, and six civilian experts.[14] These witnesses provided a broad background of experience in all phases of airborne operations.

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[12] Ibid., p. iv.

[13] Told to the writer by Col Coleman Romain, C/S, Fort Lee, Va., and member of the Ad Hoc Committee, 16 Jul 52.

[14] The following witnesses appeared in person unless otherwise noted:

Lt Gen Matthew B. Ridgway, Deputy Chief of Staff for Administration, Department of the Army

Maj Gen C. E. Byers, Deputy to Assistant Chief of Staff, G-1
Maj Gen J. M. Gavin, Weapons Evaluation Group, Office, Secretary of Defense
Maj Gen A. C. McAuliffe, Chief, Chemical Corps
Maj Gen W. M. Miley, Army Member, Airborne Panel
Maj Gen W. O. Reeder, Deputy to the Assistant Chief of Staff, G-4
Maj Gen J. P. Sullivan, QM, Army Field Forces (written testimony)
Brig Gen R. M. Cannon, 82d Airborne Division, Fort Bragg, N. C.
Lt Col R. L. Ashworth, Infantry, OCAFF Project Officer, Wright-Patterson Air Force Base, Dayton, Ohio
Lt Col A. E. Dodge, QMC, The Quartermaster Center, Camp Lee, Va.
Lt Col E. L. Keener, QMC Quartermaster Supply Officer, Utah General Depot (telephonic conversation)
Lt Col J. M. Lockhart, QMC, QM, 11th Airborne Division
Lt Col W. E. Murphy, QMC, Chief of Depot Operations Branch, Field Service Division, OQMG
Lt Col H. E. Thornber, QMC, Staff and Faculty, The Quartermaster School
Lt Col R. H. Tiffany, QMC, The Quartermaster Center, Camp Lee, Va.
Lt Col E. L. Thompson, GSC, Distribution Branch, Assistant Chief of Staff, G-4
Major Thomas Cross, Infantry, Parachute Maintenance Officer, 11th Airborne Division
Maj G. F. Lilly, GSC, Maintenance Branch, Assistant Chief of Staff, G-4
1st Lt Harry J. Riley, Infantry, Parachute Maintenance Officer, 11th Airborne Division
Mr. A. I. Aplin, Air Materiel Command, Wright-Patterson Air Force Base, Dayton, Ohio (telephonic conversation)
Mr. H. M. Hoffman, Air Materiel Command, Wright-Patterson Air Force Base, Dayton, Ohio
Mr. A. J. Lombard, Maintenance Specialist, OQMG
Mr. McLain, Air Materiel Command, Wright-Patterson Air Force Base Dayton, Ohio (telephonic conversation)
Mr. Harold A. Naisbatt, Requirements Policy Specialist for the Office of the Quartermaster General
Mr. J. D. Tucker, Air Materiel Command, Wright-Patterson Air Force Base, Dayton, Ohio

Ad Hoc Committee Report, pp. 67-132.

In addition to officers and civilians active in airborne work or related fields, several of the general officers had been closely connected with combat operations involving airborne units in World War II. Among these were Lieutenant General M. B. Ridgway who had been Commanding General of the 82d Airborne Division and, later, Commanding General of the XVIII Airborne Corps; Major General J. M. Gavin who had commanded the 82d Airborne Division succeeding General Ridgway, and had achieved near miraculous results by employing air supply in Europe during the war; Major General A. C. McAuliffe who had commanded the 101st Airborne Division; and Major General William M. Miley who had been the Commanding General of the 17th Airborne Division throughout the war. All of the remaining witnesses held, or had previously held, important positions in the airborne field.

With but one exception, statements made by all of the general officers appearing before the committee were emphatically in favor of the Army assuming storage and issue responsibilities and performing depot maintenance on parachutes and items needed for Army use. The exception was noted by General McAuliffe who felt that, although the Army should store and issue Airborne equipment, the Air Force should be responsible for depot maintenance.[15] The testimony of other witnesses supported the thesis that the Army should assume complete logistical responsibility for the air items which it used in the performance of its assigned mission.

Many other points of more than incidental importance were brought out by the witnesses. Lieutenant Colonel J. M. Lockhart, Quartermaster

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[15] Ibid., pp. 9-10, 76.

of the 11th Airborne Division, and Major Thomas Cross, Parachute Maintenance Officer of the same division, felt that the Parachute Riggers School should be moved from Fort Benning, Georgia, to Fort Lee, Virginia. Major Cross was of the firm opinion that the transfer of men to the Quartermaster Corps would be "most welcome."[16] Lieutenant Colonel R. L. Ashworth, OCAFF Project Officer, Wright-Patterson Air Force Base, Dayton, Ohio, recommended that the Army stay out of the research and development field. General C. E. Byers, Deputy to Assistant Chief of Staff, G-1, was in harmony with this suggestion. There were other proposals on which committee members differed strongly.[17] Major Cross emphasized the need for a parachute maintenance manual and an Army-wide doctrinal manual on various phases of air operations.[18] Both Major Cross and 1st Lieutenant H. T. Riley, Parachute Maintenance Company, 11th Airborne Division, stated that the Parachute Maintenance Company was overworked as presently organized.[19] Lieutenant Colonel E. L. Keener, Quartermaster Supply Officer, Utah General Depot, proposed that the Utah General Depot provide adequate storage and maintenance facilities for air-type items.[20]

The committee then subdivided into five subcommittees. These were:

Subcommittee #1 - Requirements, Funding, Purchase, Storage, and Issue
Subcommittee #2 - Depot Maintenance
Subcommittee #3 - Organization and Operations
Subcommittee #4 - Personnel and Training
Subcommittee #5 - Research and Development[21]

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[16] Ibid., pp. 106, 115.

[17] Ibid., pp. 101,102, 78; See testimony by Maj Gen J. M. Gavin, pp. 79-88, Gen W. M. Miley, p. 74, and Maj Cross, p. 114.

[18] Ibid., p. 113.

[19] Ibid., pp. 113, 118.

[20] Ibid., p. 112.

[21] Ibid., pp. 10-13. The discussion topics of each group as contained in the Ad Hoc Committee Report are included as Appendix A to this study.

Each subcommittee then reached certain conclusions and passed them on to the Committee as a whole. They were that--

a. The Air Force should continue to act as Army purchasing agent for parachutes and related items.

b. The Army should operate its own storage and issue for the items set forth in the Quartermaster Section of SR 700-50-200, as amended.

c. By virtue of subparagraph b, and for reasons of user benefit, the Army should perform depot type maintenance on the parachutes and related items outlined in paragraph 9 of SR 700-50-200.

d. Quartermaster organizational and operational support in the field should accent the development and provision of units to:

(1) Furnish all echelons of maintenance for parachutes.

(2) Provide air packaging and air resupply support to all elements of the Army.

(3) Furnish storage and issue facilities through Quartermaster Clothing and General Supply Organizations.

e. The Quartermaster Corps should operate and supervise the training of personnel to support the requirements for new military skills included in above, and see that appropriate courses and programs of instruction are formulated.

f. The Department of the Army should stimulate research and development of airborne equipment and operate supporting programs within its technical and facility capability. The Air Force should continue to develop Army-used items whose design depends on structural and aero-dynamic characteristics of Air Force airplanes.[22]

These broad conclusions were followed by a series of specific recommendations. The complete calendar of recommendations is given in Appendix B. Not all of them were to prove pertinent to airborne training at Fort Lee. Several of them, however, were to provide the basis for the activities at Lee and, also, for the participation of other QMC agencies, notably the Richmond Quartermaster Depot (RQMD) and the Quartermaster Technical Training Service (QMTTS) in the program.

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[22] Ibid., Memo TQMG, preceding page i.

Recommendations 6, 7, 8, 9, 10, 11, 14, and 15 were concerned with personnel problems relative to airborne activities in the Quartermaster Corps. Several of them dealt with the establishment of Tables of Organization and Equipment on various types of Quartermaster Companies to handle the supply and maintenance of air items. Recommended units were Quartermaster Airborne Air Packaging and Resupply Companies, and Quartermaster Parachute Maintenance Companies. Modification in the T/O&E of Quartermaster Clothing and General Supplies Depot Companies was also endorsed. There was a suggestion made for the clarification of the Air Packaging and Resupply Companies. Although subsequently disapproved by the Department of the Army, the Committee proposed an information program on the entire Airborne program. Suggestions on the procurement and detailing of officers were made. By implication, these recommendations would influence the direction of airborne training in the Quartermaster Corps.

More directly affecting the future of Fort Lee was the suggestion embodied in Recommendation 16. This requested that:

> The Quartermaster General establish a course or courses of instruction in the packing, storage and maintenance of parachutes and related items at the Quartermaster School, and that the Parachute Rigging and Repair Course at Fort Benning be phased out at such time as the Quartermaster School is capable of accomplishing this mission.[23]

The General Staff, Department of the Army, approved this with the proviso that a cost study be made on the proposed movement to, and operation

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[23] *Ibid.*, p. 19.

at, Fort Lee in comparison with retention at Fort Benning. Recommendation 12 called for the retention of high standards, qualifications, and capabilities of the Parachute Maintenance Company and its assigned personnel. This request for a criterion above average would have considerable influence on the course in packing, storage, and maintenance of parachutes established under the supervision of The Quartermaster General. Another recommendation bearing some relationship to the proposed course of instruction was No. 15. This specified that provision be made for the transfer or detail of airborne qualified officers to the Quartermaster Corps. By this means, the Department of the Army provides competent individuals to organize and instruct the students of the course.

Recommendation 17 proposed that the Army conduct its own research and development studies on certain types of air-type equipment. This recommendation was the basis for the Quartermaster Board, another Fort Lee activity, into the airborne program. The Department of Defense Research and Development Board approved Recommendation 17 and it was subsequently put into practice.[24]

The report issued by the Ad Hoc Committee on 14 April 1950 provided specific recommendations for the utilization of the Quartermaster Corps in airborne operations. (Recommendations 2, 3, and 4 concerned the Richmond Quartermaster Depot. Since they do not directly relate to the development of airborne courses of instruction at Fort Lee, they are not included in the scope of this study.) The document embodied ideas on the employment of the QMC and forecast the steps which were to be taken in any future development (see figure 1).

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[24] The recommendation was forwarded as stated in par 2(k) of Dept of the Army Memo for TQMG, 20 Jul 50, sub: Report of the Department of the Army OQMG Ad Hoc Committee on QM Aspects of Airborne Operations.

FIGURE 1

Reassignment of Armed Forces Airborne Functions
as a Result of Department of Army
Ad Hoc Committee Report

| Function | Responsibility Prior to Approval Of Recommendation | Responsibility After Approval of Recommendations |
|---|---|---|
| Purchase | Air Force | Air Force |
| Depot Storage and Issue | Air Force | Army (QMC) |
| Depot Maintenance | Air Force | Army (QMC) |
| Requirements, Funding, Budget Defense | Army (QMC) | Army (QMC) |
| Organizations<br>a. Resupply Company | Air Force | Army (QMC) T/O&E 10-407 (Controversial) Quartermaster Air Supply and Packaging Company |
| b. Division Parachute Maintenance Company | Army (Infantry) T/O&E 7-27T | Army (QMC) T/O&E 10-337 Quartermaster Parachute Maintenance Company |
| c. Depot Maintenance Company | Air Force | Army (QMC) T/O&E 10-417 Quartermaster Air Equipment Maintenance Company |
| Training Rigger School | Army (Infantry) | Army (QMC) |
| Research and Development | Air Force | Air Force (Except items which are normally QM Issue) |

## CHAPTER III

## THE QUARTERMASTER SCHOOL PREPARES TO CONDUCT AIRBORNE COURSES OF INSTRUCTION

### The Cost and Staff Studies

The most important role assumed by Fort Lee in airborne training stemmed directly from Recommendation 16 of the Ad Hoc Committee Report. After the Report had been approved by Major General Herman Feldman, The Quartermaster General, it was printed and forwarded to the Assistant Chief of Staff, G-4, GSUSA and the Assistant Chief of Staff, G-3, GSUSA.[1]

Department of the Army officials studied the proposals from April 1950 until July 1950. A summary of the discussions of the Department of the Army General Staff is contained in Appendix B. Because of its importance, the opinion rendered on Recommendation 16 is here given in full:

Recommendation 16. Concur in the Quartermaster plan to establish a course or courses of instruction in the packing, storage and maintenance of parachutes and related items, to be integrated with an expanded Parachute Rigging and Repair Course as now conducted at Fort Benning, as concurred in inclosure 2, reference 1. A cost study of the movement to and operation of the school at Fort Lee, as compared with its retention at Fort Benning, will be prepared and submitted to this office in order to provide a basis for a decision on its ultimate location. This action is based on the premise that:

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[1] Ad Hoc Committee Report, Memo TQMG preceding p. i. See Appendix B.

(1) Facilities are already available at Fort Benning to include space for expansion.

(2) Present parachute rigging and repair school is located with the Airborne Center which reduces travel for parachutist training phase.[2]

A cost study was then prepared under the direction of the Office of The Quartermaster General. The Quartermaster General assigned the preparation of a detailed staff study on the location of the proposed parachute packing, storage, and maintenance courses of instruction to the Commandant of the Quartermaster School at Fort Lee.

Two sites were considered in addition to Fort Benning and Fort Lee. They were Fort Bragg, North Carolina, where the Airborne Center was located; and Fort Campbell, Kentucky, home station of the 11th Airborne Division. The Staff Study was based upon six basic assumptions. They were that:

1. Initial requirement of 927 men must be trained starting with a class of 40 on 1 February and building up gradually to a class of 100 by 1 July 1951.

2. Three type SP 14 shop buildings and three classroom buildings will be made available at Fort Lee, Virginia, as required. That is, two shops and two classrooms on 1 January 1951, and one shop and one classroom on 1 February 1951.

3. The necessary equipment such as sewing machines, parachutes, parachute packing tables and supplies will be available by 15 January 1951.

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[2]Dept of the Army Memo for The QM General No. G4/D7 36401, 20 Jul 50, Sub: Report of the Department of the Army OQMG Ad Hoc Committee on QM Aspects of Airborne Operations (Par 2 (j)). An error which had no influence on the cost study will be noted in (2) of the quoted material. The Parachute Rigging and Repair Course was located at Fort Benning, Ga., while the Airborne Center was, and is of this writing, situated at Fort Bragg, N. C. The writer is indebted to Col Roy T. Evans, Jr., Commandant of the QM School, for calling his attention to this fact in an interview on 5 Aug 52.

4. The required number of qualified instructors will be available by 1 January.

5. The cost of equipment and cost of installation of equipment to establish this school, and the cost of operation of the school will be the same wherever the school is located.

6. The cost of transporting students to and from the school would be greater if the school is located at Fort Benning or Fort Lee since the majority of the students for the school have to come from either Fort Bragg or Fort Campbell.[3]

A discussion of the advantages and disadvantages of the four military installations as sites for the course were measured against these assumptions. The study closed with the recommendation that an airborne course to train personnel in MOS 0620 (Parachute Rigger and Repairman, presently designated as MOS 4620, Parachute Packer and Repairman) be established at Fort Lee under direction of the Quartermaster School.[4] The recommendation was based on the conclusions that:

1. There is no school now in being in the Army which has the required scope of instruction.

2. Fort Bragg, North Carolina, would be in an excellent place to conduct the course except for the reluctance of the Airborne Center to have the course there and the fact that it would necessitate the expenditure of $520,000 for additional buildings.

3. Fort Campbell, Kentucky, would not be as desirable as Fort Bragg because the Airborne Center is located at Fort Bragg. In addition, it would require approximately $200,000 to repair buildings to start the course.

4. Although Fort Benning now has a Parachute Rigging and Repair Course, it would have to be greatly expanded both in length and number of students to fulfill the instruction requirement and the student load.

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[3]"Staff Study on Location of The Airborne School" Incl #1 to DF to CG, Fort Lee, Va., from Commandant, QM School, dated 19 Sep 50, p. 1.

[4]Ibid., p. 5.

5. The cost of establishing the school will be less at Fort Lee than at the other three stations due to the fact that facilities are presently available. Fort Lee has the disadvantage of not being located near airborne activities.[5]

The Quartermaster Corps received a measure of satisfaction from the results of this Staff Study. The Quartermaster School, as the principal training agency of the Corps, would be able to supervise and direct the course more closely at Fort Lee than at any other location. The centralized control over airborne logistics training would inevitably result in standardization of operational techniques throughout the Army. Moreover, the location of other QMC activities engaged in various aspects of the new mission such as the Quartermaster Board and the Quartermaster Technical Training Service at Fort Lee, would allow the School an opportunity to keep close check on many of the new developments and publications in the field. Most important of all, as one Quartermaster officer put it, was that since The Quartermaster General was assigned the mission of parachute supply for the Army "he should have the tools to do the job." The Quartermaster School would provide a most useful tool in this mission.[6]

The Quartermaster School forwarded the staff study to The Quartermaster General late in September 1950. He approved the findings and forwarded it to the Assistant Chief of Staff, G-4, GSUSA, on 29 November 1950.[7] The only significant difference between the OQMG Cost Study Memorandum of 29

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[5]Ibid., p. 4.

[6]Told to the writer by Col Roy T. Evans, Jr. (5 Aug 52).

[7]OQMG Memo for AC of S, G-4, GSUSA, 29 Nov 50, sub: Cost Study.

November and the Quartermaster School Staff Study was in the wording of the recommendation. The study had requested that "an airborne course to train specialists MOS 0620 be established at the Quartermaster School, Fort Lee, Virginia."[8] The Office of The Quartermaster General's memorandum briefly outlined the scope of instruction by recommending a "school course in packing, storage, and maintenance of parachutes and related items"[9] at the School.

Another memorandum accompanied the Cost Study from the Office of The Quartermaster General to the Assistant Chief of Staff, on 29 November 1950. This summarized the cost of establishing the course at the installations considered. Estimated costs were:

| | |
|---|---|
| Fort Benning, Georgia. . . . . | $ 500,000 |
| Fort Bragg, North Carolina . . . . . | $1,001,000 |
| Fort Campbell, Kentucky. . . . . | $ 381,000 |
| Fort Lee, Virginia.. . . . . | $ 125,000[10] |

The Commandant of the Quartermaster School presented a strong case to The Quartermaster General for establishing of the school course at Fort Lee. Military expediency favored Lee and economic considerations gave strong support to the claim. The Department of the Army, following review by the Assistant Chiefs of Staff, G-3 and G-4, GSUSA, approved the recommendation of the Cost Study.

## Planning The Course of Instruction

The Chief, Army Field Forces, Fort Monroe, Virginia was the individual

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[8]"Staff Study on Location of the Airborne School," p. 5.

[9]OQMG Memo, sub: Cost Study, p. 5.

[10]Memo, OQMG, for AC of S, G-4, GSUSA, 29 Nov 50, sub: Cost Study.

who could give final approval for the establishment of a school course. Therefore, Department of the Army concurrence in the Cost Study was returned to The Quartermaster General who requested that such a school course be approved and forwarded it to him on 30 December 1950.[11]

The request submitted by the Office of The Quartermaster General proposed a comprehensive course of instruction to be entitled, "Quartermaster Airborne Technical Course."[12] The purpose of the course was to train officers and enlisted men to:

> Inspect, pack, repair and maintain troop and cargo parachutes, aerial delivery containers, heavy drop kits and other aerial resupply equipment; to pack, rig, and load all types and classes of supplies and cargo for aerial delivery and to secure such loads in aircraft; to prepare for ejection and to eject cargo in flight; and to recover parachutes and dropped items of aerial resupply equipment; to perform operator maintenance on T/O&E equipment. Officer MOS for Which Trained: Parachute Maintenance Officer (4820). Enlisted MOS for Which Trained: Parachute Rigger and Repairman (0620).

Recommended location of the course of instruction was Fort Lee and the length was set at twelve weeks with a total of 528 hours of work. In order to attend the course it was suggested that an officer should be below the grade of Colonel either in the Regular Army or as an active member of a civilian component. Enlisted personnel should be below the grade of E-5 (Sergeant). Another proposed requirement for enlisted personnel was a score of 100 or better in Aptitude Area VII. Aptitude Area VII consisted

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[11] Ltr, OQMG to Chief, AFE Fort Monroe, Va., 30 Dec 50, sub: Request for Approval to Establish a School Course. Because of the importance of this document and other documents relating to the establishment of the course, they are included in Appendix C.

[12] The name of the course, and the group assigned to instruct it, changed from time to time.

of a battery of three tests--pattern analysis, mechanical aptitude, and shop mechanics. A score of 100 or better would indicate above average ability based on the fact that 100 was the exact center on the scale of measurement. In other words, a grade above 100 would show more ability than average while a grade below that figure would indicate the reverse. Few other courses at the Quartermaster School required more than a score of 80 to attend. A mandatory requirement for officers, warrant officers, and enlisted personnel, alike, was that they be qualified parachutists. The proposed class schedule called for a maximum of 100 graduates every four weeks from the course.

The number of personnel required by the Quartermaster School to conduct the course were divided into two categories--instruction and administration. Six officers, forty enlisted men, and two civilian technicians would be needed for teaching purposes. Administration would be handled by three officers, four enlisted men, and one civilian. The total personnel requirement was set at nine officers, forty-four enlisted men, and three civilians. Annual monetary needs were appraised at $14,500 for civilian salaries and $6,000 for training funds the first year. The latter would be reduced to $5,000 per year thereafter. Available personnel allocations did not provide for any part of this personnel need nor did presently available fund allocations cover the civilian salaries.

On 8 February 1951, The Adjutant General forwarded a letter to the Chief of the Army Field Forces proposing three changes in the information submitted in OQMG letter of 30 December 1950.[13] The first change was that

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[13] Ltr, TAG, to Chief, AFF, Fort Monroe, Va., (2 Jan 51) G-1, 8 Feb 51, sub: Request for Approval to Establish a School Course. (Reproduced in Appendix C).

the title of the course should be "Parachute Packing, Maintenance, and Aerial Delivery" instead of "Quartermaster Airborne Technical Course." Second, it reworded the purpose of the course to read:

> Training in inspection, packing, repairing, and maintenance of personnel and cargo parachutes and aerial supply equipment, loading and securing cargo in aircraft, ejection of cargo in flight, and recovery of parachutes and aerial supply equipment: Officer MOS for which trained: Parachute Maintenance Officer (4820). Enlisted MOS for which trained: Parachute Packer and Repairman (4620).

This, except for very minor changes, kept to the spirit of the original purpose as defined in the letter of 30 December 1950. It will be noted that as a result of the revision of the enlisted MOS codes that the enlisted MOS had been changed from 0620 to 4620 in November 1950. This accounted for the substitution of packer for rigger.

The third change was in the listing of prerequisites for the entrance of enlisted men as students. It was now recommended that only Grades E-3 (Corporal) or E-2 (Private First Class) be admitted. Furthermore, the Aptitude Area VII minimum score necessary was lowered from the proposed 100 to 80 as a result of the large number of personnel being drafted who possessed lower aptitudes.

Within a week the Chief, Army Field Forces, had approved the establishment of the course and authorized direct correspondence between The Quartermaster General, the Commandant of the Infantry School, and the Chief, Army Field Forces.[14]

The Quartermaster General informed the Commanding General of Fort Lee

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[14]1st ind from Chief, AFF, to TQMG, 14 Feb 51. Reproduced in Appendix C.

on 17 February 1951 that approval had been granted by the Chief, Army Field Forces.[15] By 20 February 1951 the Quartermaster School possessed authorization to set up the course of instruction which had been recommended by the Ad Hoc Committee in April of the previous year. The Quartermaster Corps was now empowered to establish and teach Army airborne supply procedures which would be used throughout the Armed Forces.

Approval in this case, as is so often true, did not solve the problems involved in the action to be taken. The course had been given a name, the course objectives had been clearly outlined and officer and enlisted military occupational specialties had been specified. Recommendations pertaining to other questions involved in the establishment of the course had also been rendered. However, much remained to be done before the first class could assemble.

Even before the Quartermaster School had been authorized to conduct instruction in various phases of airborne supply, officials connected with the installation had started work toward the solution of the most pressing questions. In fact, as early as September 1950, The Quartermaster General had granted the School verbal authority to make plans for conducting a course of instruction to include QMC responsibilities for parachute packing, and maintenance, and airborne supply.[16] Solutions to all problems had to be reached as soon as possible, preferably before 16 May 1951 which was the

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[15]Ltr, OQMG, to CG, Fort Lee, Va., 17 Feb 51, sub: Approval to Establish a School Course. 1st ind from CG, Fort Lee, to Commandant, QM School, Fort Lee, dated 19 Feb 51. (Reproduced in Appendix C).

[16]Annual Report, The Quartermaster School, 1 July 1950 - 30 June 1951 (Fort Lee: The QM School, 1951), p. 15.

date the School had designated for the reporting of the opening class.[17]

### Preparing the Initial Programs of Instruction

Two sources could be exploited in the organization of a comprehensive program of instruction (POI) to be used in Parachute Packing, Maintenance and Aerial Delivery Course. The first of these was the POI currently being used at Fort Benning. Second, and of at least equal importance, was the field experience of instructors who would be assigned to the school.

Since World War II days there had been a Parachute Riggers Course, although sometimes known by other names, conducted at the Parachute School, Fort Benning, Georgia. In the early days of jump training, students learned how to jump, pack their chutes, and load equipment. After graduation each man had to pack his own parachute. This procedure proved to be too slow and many regiments established sections within the attached service companies to perform this service for the regiment. The success of this method in several regiments led to experimentation on a division level. This experimentation resulted in the establishment of a Parachute Maintenance Company on the divisional level. A separate parachute Riggers Course was established at Fort Benning to train men from these units in parachute packing.[18]

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[17] 2d Ind to OQMG Ltr, dtd 17 Feb 51 fr Comdt, QMS, to TQMG, thru CG, Fort Lee, Va., 20 Mar 51.

[18] Told to the writer by Capt Philip Eddy, OIC, Parachute Packing Sec, Airborne Gp, QM School, Fort Lee, Va., and SFC Earl Kennedy, Instructor in Parachute Packing Sec, 17 Sep 52. See also "Quartermaster Support of Airborne Operations, Excerpts of Testimony Given Before an Ad Hoc Committee: by Maj Gen James M. Gavin and others in The Quartermaster Review, XXX, No. 2, pp. 8-9 ff.

After the war ended, Fort Benning continued to conduct a course in parachute packing. After 1 November 1946, the Infantry School was responsible for parachute training and allied courses in rigging and communications. By 1948 the Parachute Riggers Course was of eight weeks duration[19] but two years later it was reduced to six weeks.[20]

On the eve of the opening of the Parachute Packing, Maintenance, and Aerial Delivery Course at Fort Lee, the Infantry School conducted a six-weeks training course for parachute riggers with two weeks interval between classes. One large shop building was used for the training.[21] A noncommissioned officer who was connected with the course from 1946 to 1951 recalled that the majority of the instruction was devoted to maintenance. No instruction was given in heavy drop technique until 1950 when instruction in the packing and rigging of the 100-foot canopy was included. He could remember students participation in only one heavy drop during this five year period. In all, only about forty hours were allotted to practice in the packing of parachutes.[22] Actually, most parachute packers received much more training upon assignment to an airborne division. The 11th Airborne Division gave its prospective riggers two weeks of instruction including packing of parachutes and fundamentals of heavy drop techniques.[23]

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[19] The Army Almanac, p. 381.

[20] TDY rpt of 1st Lt George N. Edwards, QMS, to OIC, Trades Gp, QM School, 14 Jul 50, sub: Report on TDY to Fort Benning to Obtain Information on Parachute Rigger and Repair Course.

[21] Ibid.

[22] Told to the writer by M/Sgt John Whitley, Instructor, Maintenance Sec, Airborne Gp, QM School, Fort Lee, Va., 8 Sep 52.

[23] Cross, Maj Thomas R., "Operation of the Airborne Division Parachute Maintenance Company," Quartermaster Review, XXX, 2, pp. 12-13 ff.

The duties of MOS 4620, Parachute Packer and Repairman, as stated in SR 615-25-15, and the mission of the new Quartermaster Course as listed in The Adjutant General's letter of 8 February 1951 were considerably larger than the scope of the course offered at Fort Benning. The Benning course covered only about thirty-five percent of the instruction proposed for Lee.[24] The POI's used at Benning were utilized so far as possible.[25]

The Quartermaster General kept the Commandant of the Quartermaster School informed of new developments at Fort Benning. On 29 January 1951 he forwarded copies of correspondence which had passed between Forts Benning and Bragg relative to the addition of heavy drop equipment instruction to the curriculum of the Benning course.[26]

Although it is not possible to determine the exact amount of material from Benning which was used, it is known that the material was carefully screened in preparing the program of instruction for the Quartermaster School. It definitely provided much needed background for the much more comprehensive course which was soon begun.

Practical field experience proved at least as valuable as any previous school experience when it came to preparing the program of instruction. The group assigned the task of outlining the initial course consisted of Lieutenant Colonel Abbott E. Dodge, Major Edward J. Downing, Major Walter

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[24] Annual Report, QM School, p. 15. Also OQMG Memo, sub: Cost Study, p.2.

[25] As early as 12 Apr 50 QMTTS had requested a file of material relative to the Parachute Rigger and Repairman Course offered at Fort Benning. The request was answered by the Infantry School on 3 May 50. Infantry School ltr to Chief, QMTTS, Fort Lee, Va., 3 May 50, sub: Infantry School Instructional Material. Copy of letter given to writer by courtesy of Lt Col William Pencak, OIC, Airborne Gp, QM School, 2 Jul 52.

[26] Ltr, OQMG, and two incls to CG, Fort Lee, Va., ATTN: QM School, 24 Jan 51, sub: The Parachute Rigging and Repair Course, Infantry School, Fort Benning, Georgia.

J. Mervis, and Major Raymond T. Smith.[27] Lt. Colonel Dodge and Major Smith, in particular, had had wide experience in airborne work. Shortly after Lieutenant Colonel Dodge signed the draft of the POI on 4 December 1950, Captain Vincent G. DeRitis, Captain Charles J. Thompson, and Captain Donald H. McFerren were assigned to the group. They assisted in revision and preparation of the draft program. This group prepared a proposed POI for the Quartermaster Airborne Technical Course. Six copies were forwarded to The Quartermaster General on 14 February 1951.[28]

An appraisal of the 1 February 1951 POI reveals that it closely followed the scope of the course submitted by The Quartermaster General to the Chief, Army Field Forces on 30 December 1950. The reference to an officer MOS was deleted but except for a slight variation in phraseology, the two POI's were the same.[29]

Prerequisites for entrance were kept the same as originally proposed with a standard score of 100 or higher in Aptitude Area VII still required

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[27]Told to the writer by Capt Charles J. Thompson, OIC, Air Items Branch, RQMD, 30 Sep 52, and Miss Barbara Samuels, Typist, Film Sub-Library, QMTTS, 13 Oct 52. Miss Samuels served as a typist of the Aerial Resupply Group in the winter of 1950-1951, as it was called at that time. Lt. Col Dodge was the first officer assigned to the program. He was given his initial assignment on 20 Sep 50. At that time, he was a member of the Staff and Faculty of the QM School. DF from OIC, Airborne Supply Gp, to Ass't Dir of Tng, QMS, 13 Jun 51, sub: Annual Report for the Airborne Supply Group.

[28]QM School, ltr to TQMG through the CG, Fort Lee, Va., 14 Feb 51, sub: Submission of Proposed Program of Instruction: QM Airborne Technical Course.

[29]Proposed Program of Instruction for Quartermaster Airborne Technical Course (MOS 0620), 1 Feb 51.

of enlisted men. A new suggestion was that enlisted men be admitted although they were not qualified as parachutists provided they agreed to become qualified after graduation from the course. This required the substitution of eight hours of organizational parachute packing instruction instead of a scheduled parachute jump. The course still contained 528 hours and ran for twelve weeks. The changes recommended by The Adjutant General's letter to the Chief of Army Field Forces on 8 February 1951 were excluded because they were not received in time to incorporate them. The course, as it was proposed at this time, consisted of 12 weeks (528 hours) of work divided into four major phases.

The Parachute and Container Packing phase (120 hours) contained instruction in the packing of troop type, free type, and aerial delivery container parachutes; a study of aerial delivery containers, practice in organizational parachute packing, and a student parachute jump. In the QM Air Equipment phase (160 hours), the students learned basic maintenance procedures, inspection and classification of defects, sewing machine operation, parachute and equipment repair, and equipment modification and overhaul. The Aerial Resupply Phase (140 hours) consisted of the study of air transportability, free drop techniques, heavy cargo parachute packing, and heavy equipment drop techniques. The Miscellaneous Phase (108 hours) included training in purely military subjects required by the Department of the Army such as physical conditioning, troop information, and commander's time.

The Quartermaster General and the Chief, Army Field Forces considered

the proposed POI at some length before they returned their evaluation on 8 May 1951. In general, their comments coincided with those made earlier by The Adjutant General.[30] Among these changes was designation of the course as the "Parachute Packing, Maintenance, and Aerial Delivery Course" rather than "Quartermaster Airborne Technical Course." Officers were to be permitted to attend only if they were below the grade of colonel. Warrant officers could be admitted only if they were qualified parachutists. Entrance requirements for enlisted men were somewhat modified. They now had to be in the grade of corporal or below and to be qualified parachutists with a score of "good" or better in the general mechanical aptitude tests.

In addition, they suggested that certain air transportability subjects be dropped or shortened in length to allow time for at least six hours instruction in the recovery of parachutes and other air supply equipment. The extra hours could be gained by deleting the one hour devoted to the "History of Airborne Operations" and reducing the number of hours of instruction devoted to "Cargo Aircraft", "Flight Rules and Safety Precautions", and "Ropes and Knots".

Officials of the Quartermaster School took immediate action to change the POI in conformity with the instructions of The Quartermaster General.[31] A week later Colonel Dodge replied that the changes had been made. He

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[30] 2d Ind, TQMG to CG, Fort Lee, Va., ATTN: QM School, 8 May 51, to Ltr, QM School, 14 Feb 51.

[31] DF, OIC, Curriculum Br to OIC, Airborne Sup Gp, 15 May 51, sub: Approval of POI for Parachute Packing, Maintenance and Aerial Delivery Course.

noted, however, that since recovery of parachutes and aerial supply equipment was included in the two practical exercises involving a parachute jump and cargo ejection, it was unnecessary to add six hours in that work at the expense of other subjects.[32] It is interesting to observe that, despite Colonel Dodge's statement that "Indicated and/or desired changes have been applied to the copy of our proposed POI. . .," several changes were not made on the May 1951, or February 1952, editions of the POI. The phrase "Common to the Department of the Army" was left in the purpose and conversely the mention of Officer MOS was left out. The statement about Regular Army officers or reserve component officers was missing from the listing of prerequisites. On the other hand, the prerequisites for enlisted men were modified to meet The Quartermaster General's specifications. The new title was used.

In May 1951, and just in time to meet the first class, the approved POI appeared. The list of major subject headings and hours devoted to each were as follows:

PARACHUTE PACKING, MAINTENANCE AND AERIAL DELIVERY
(12 weeks, 528 hours)

| Subject | Hours |
|---|---|
| Parachute and Container Packing | 120 |
| Troop Type Parachute Packing | (69) |
| Free Type Parachute Packing | (12) |
| Aerial Delivery Parachute Packing | (13) |
| Aerial Delivery Containers | (10) |
| Organizational Parachute Packing | ( 8) |
| Student Parachute Jump | ( 8) |
| QM Air Equipment Maintenance | 160 |
| Basic Maintenance | (18) |

[32] Ibid., Comment No. 2, 22 May 51.

| Subject | Hours |
|---|---|
| QM Air Equipment Maintenance (Continued) | |
| Inspection and Classification | (10) |
| Sewing Machine Operation | (32) |
| Parachutes and Allied Equipment Repair | (55) |
| Equipment Modification and Overhaul | (45) |
| Aerial Resupply | 140 |
| Air Transportability Subjects | (28) |
| Free Drop Techniques and the 2200 lb. Container | ( 4) |
| Heavy Cargo Parachute Packing | (32) |
| Heavy Equipment Drop Techniques | (76) |
| Miscellaneous | 108 |
| Physical Conditioning | (60) |
| Troop Information | (12) |
| Reserved for Quartermaster School Commandant | (12) |
| Reserved for Unit (Administrative) Commander | (24) |
| Total | 528[33] |

In order to meet the deadline for the assembly of the first class, instructor personnel had begun to work on the writing of lesson manuscripts in March of 1951 and continued throughout April and May. The full complement of officer and enlisted instructors had arrived by May and they were put to work supplementing the POI with a complete set of manuscripts on the subjects to be covered.[34]

Colonel Dodge assigned instructors to teach in subjects in one of the three phases--Parachute and Container Packing; QM Air Equipment Maintenance; or Aerial Resupply. The officer in charge of each phase, then assigned the responsibility for preparing certain hours of instruction. Each instructor wrote the lesson manuscript and submitted it to the phase chief for review. If not completely acceptable, it was returned, reworked, and submitted again

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[33] Program of Instruction for Parachute Packing, Maintenance and Aerial Delivery Course (MOS 4620) (10-OE-30)(Fort Lee, Va.: The QM School, May 51) p. 2.

[34] Told to the writer by Capt Eddy, 17 Sep 52, and Capt Thompson, 30 Sep 52.

to the phase chief. Throughout all of this procedure there were constant conferences and discussions between instructors of the airborne group.

From the phase chief, manuscripts were submitted to the Officer in Charge of the course. Then more revisions were made in manuscripts where necessary. When the manuscripts were approved by the OIC of the course, they were ready to be taught.[35]

As a result of their strenuous efforts, the lesson manuscripts were ready in time for the first class, but were revised from time to time as weaknesses appeared or when new information became available.

## Determining the Opening Date of the Course

The opening date of a new course of instruction is determined by many factors. Among those always to be considered is the availability of classrooms, establishment of a Table of Distribution, formulation of a program of instruction, writing of manuscripts, and the arrival of students. These problems were greatly magnified in the case of the airborne courses since a large amount of specialized equipment and highly skilled instructors were required. All of these factors, and many others, caused a delay in starting the first class.

Initially, the Quartermaster School planned to begin the course on

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[35] Based on an unpublished and unsigned account of the establishment of the course written by an instructor in the Airborne Group. Copy given to the writer by Lt Col Pencak, OIC, Airborne Group.

2 February 1951. Later the date was set as 2 April 1951.[36] A schedule of the first three classes was established on 8 January 1951. Based on the plan of starting one class approximately every four weeks,[37] and on the premise that the course would not be able to operate at full capacity of 100 students immediately, the following tentative schedule was set up:

| | Report | Start | Graduate | Capacity |
|---|---|---|---|---|
| Class 1 | 28 March 1951 | 2 April 1951 | 27 June 1951 | 50 |
| Class 2 | 25 April 1951 | 30 April 1951 | 26 July 1951 | 70 |
| Class 3 | 30 May 1951 | 4 June 1951 | 29 August 1951 | 100[38] |

Meanwhile the Infantry School had gone ahead with plans to close the Parachute Rigging and Repair Course in early June 1951 and careful coordination was required to effect a timely and smooth transition to the Quartermaster School.[39] The Chief, Army Field Forces approved the

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[36] The date of 2 Feb 51 is mentioned in DF from OIC, Abn Sup Gp, to Asst Dir of Tng, QMS, 13 Jun 51, sub: Annual Report for the Airborne Supply Group. The later date, 2 Apr, was set in telecon between Col Engstrom, OQMG, and Col Evans, QM School, 3 Jan 51, noted in QM School ltr to OOMG through CG, Fort Lee, Va., 8 Jan 51, sub: Starting Dates for Parachute Rigger and Repairman Course.

[37] Ltr OQMG to Chief, AFF, 30 Dec 50, sub: Request for Approval to Establish a School Course.

[38] Ltr, QM School to OQMG through CG, Fort Lee, Va., 8 Jan 51, sub: Starting Dates for Parachute Rigger and Repairman Course.

[39] Ltr, Infantry School to Chief, AFF, 10 Jan 51, sub: Addition of Heavy Drop Equipment Instruction to the Parachute Rigging and Repair Course.

discontinuance of the Fort Benning classes after 17 June 1951.[40]

On 15 December 1950, the Chief, Army Field Forces had announced that 212 graduates possessing the MOS 0620 were needed for the remainder of fiscal year 1951.[41] Since the Infantry School could supply only seventy-five of these, the Quartermaster School must graduate 137 students before 30 June 1951. This made it possible for The Quartermaster General to propose one class of fifty men and another of ninety men to start before the end of June instead of the three classes which the School had originally projected. The new recommendation called for Class I to report on 25 April 1951 and graduate on 24 July 1951.[42] This delay gave the Quartermaster School an additional month in which to prepare for the course.

Apparently, even this period of grace was not to be sufficient. On 20 March 1951, the School requested that Class No. 1, with a capacity of 100 instead of 50, report on 16 May and that Class No. 2, also with a 100-student capacity report on 13 June.[43] The most important reason for requesting a further delay was the fact that the first of the classroom shops would not be ready until approximately 15 May.[44]

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[40] See announcement in Hq, 2d Army circular ltr, 19 Jan 51, sub: Changes in Closing Dates, Parachute Rigging and Repair Course, The Infantry School.

[41] Ltr, Chief, AFF to Cmdt, QM School, 15 Dec 50, sub: Requirements for Officer Schooling, January through June 1951. . .This ltr is mentioned in OQMG ltr to CG, Fort Lee, Va., ATTN: The QM School, 17 Feb 51, sub: Approval to Establish a School Course.

[42] Ibid. The second class was to report on 31 May and finish on 25 August.

[43] 2d Ind to Ibid., 20 Mar 51.

[44] For Record Note attached to Ibid. See Ibid., 2d Ind., 20 Mar 51.

The Quartermaster General approved the reporting date of 16 May.[45] Thus, students would report for Class No. 1 on Wednesday, 16 May 1951, and instruction began on Monday morning, 21 May. Announcements to this effect were distributed by Army Field Forces throughout the Army. Class capacity was set at 80 students.[46]

## Securing the Staff and Faculty

Planning for airborne instructor and administrative personnel was begun long before the QMC received formal approval to conduct the course at the Quartermaster School. This proved wise for when approval was finally granted to conduct the course there was a great amount of pressure exerted to get started immediately. The Commandant of the Quartermaster School furnished an estimate of the personnel needs of the School to The Quartermaster General in October 1950 which called for 10 officers, 60 enlisted men and 4 civilians to conduct the 12-week course every four weeks. He suggested that the military personnel be jump qualified but conceded that this could be accomplished after they were assigned to the School.[47] He requested by name 3 officers and 1 warrant officer from the 82d Airborne Division to report to the School in November 1950. This request was disapproved because the program had not progressed far enough to predict its final approval at that time.[48]

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[45] Ibid., 4th Ind., 4 Apr 51.

[46] Ibid., 6th Ind., 20 Apr 51.

[47] Ltr, QMS to OQMG, through CG, Fort Lee, Va., 4 Oct 50, sub: Instructor Requirements, Air Supply and Maintenance Course.

[48] Told to the writer by Dr. Robert M. Allen, Educational Advisor, QMS, 10 Sep 52.

On 15 December, the Quartermaster School revised its request upwards and asked for 13 officers, 66 enlisted men, and 5 civilians.[49] The Quartermaster General reduced the number required to 9 officers, 44 enlisted men, and 3 civilians and forwarded the request to the Chief, Army Field Forces.[50] This was on 30 December 1950 and was the number finally approved by G-1.[51] The Quartermaster School considered this number as too few to accomplish the mission and, on 17 February 1951, asked for an increase from 56 to 69 men.[52] The Personnel and Training Division, OQMG, refused to grant this request "pending reevaluation of requirements based upon experiences in conducting the course and upon the actual training load imposed."[53]

Thus, when the Parachute Packing, Maintenance, and Aerial Delivery Course began it was organized as shown in figure 2. Although the number of persons on the staff and faculty was much less than the School desired, they were able to present the first classes without serious difficulty.

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[49] Ltr, QMS, to TQMG thru CG, Fort Lee, Va., 16 Dec 50, sub: Request for Approval to Establish a School Course of Instruction for MOS 4620.

[50] Ltr, TQMG to Chief, AFF, 30 Dec 50, sub: Request for Approval to Establish a School Course.

[51] Incl #2 (OQMG to AC of S, G-1, DA, through AC of S, G-4, 9 Jan 51) to OQMG ltr to CG, Fort Lee, Va., ATTN: QMS, 17 Feb 51, sub: Approval to Establish a School Course.

[52] Ibid., (2d Ind QMS to OQMG, thru CG, Fort Lee, Va., 20 Mar 51).

[53] 2d Ind, Ltr, QMS to TQMG thru CG, Fort Lee, Va., 16 Mar 51, sub: Organization and Table of Distribution for the PPM&AD Course (10-0E-30).

[54] Based on roster of officer personnel as of 21 May 51 which was included in DF fr OIC, Abn Sup Gp to Asst Dir of Tng, QMS, 13 Jun 51, sub: Annual Report for the Airborne Supply Group.

[55] Told to the writer by Dr. Robert M. Allen, 10 Sep 52.

FIGURE 2

ORGANIZATION AND TABLE OF DISTRIBUTION
PARACHUTE PACKING-MAINTENANCE AND AERIAL DELIVERY COURSE
(10-OE-30)

**OFFICER IN CHARGE**
0-5
Reg. 1 Auth. 1

**ASSISTANT O.I.C.**
(Senior Instructor)
0-4
Reg. 1 Auth 1

**INSTRUCTION PHASE-I PARACHUTE AND CONTAINER PACKING**

| Reg: | Grade: | Auth: |
|---|---|---|
| 1 | 0-3 | 1 |
| 2 | 0-2 | 1 |
| 1 | E-7 | 1 |
| 3 | E-6 | 3 |
| 5 | E-5 | 5 |
| 6 | E-4 | 5 |

**INSTRUCTION PHASE-II QM-AIR TYPE EQUIPMENT-MAINTENANCE**

| Reg: | Grade: | Auth: |
|---|---|---|
| 1 | 0-3 | 1 |
| 2 | 0-2 | 1 |
| 1 | E-7 | 1 |
| 3 | E-6 | 3 |
| 5 | E-5 | 5 |
| 6 | E-4 | 6 |
| 1 | GS-8 | 1 |
| 1 | GS-7 | 1 |

**INSTRUCTION PHASE-III AERIAL DELIVERY**

| Reg: | Grade: | Auth: |
|---|---|---|
| 1 | 0-3 | 1 |
| 2 | 0-2 | 1 |
| 1 | E-7 | 1 |
| 3 | E-6 | 3 |
| 5 | E-5 | 5 |
| 6 | E-4 | 6 |

**ADMINISTRATION (ADM. AND SUPPLY)**

| Reg: | Grade: | Auth: |
|---|---|---|
| 1 | 0-3 | 1 |
| 2 | E-7 | 0 |
| 1 | E-6 | 0 |
| 4 | E-5 | 0 |
| 1 | E-4 | 0 |
| 1 | GS-3 | 1 |
| 1 | GS-2 | 0 |

| Total Requirements | | Present Authorization | |
|---|---|---|---|
| 12 | Officers | 9 | Officers |
| 53 | Enlisted Men | 44 | Enlisted Men |
| 4 | Civilians | 3 | Civilians |

## Building Assignments for the New Program

When the planning began for the course, Lt Colonel Abbott E. Dodge, the first officer in charge of the program, set up his office in Building T-1629.[56] Building T-1629 served as a headquarters for the Airborne Group until the winter of 1950-1951 when it was moved to Building T-1247.[57]

The cost study prepared for the Assistant Chief of Staff, G-4, GSUSA had clearly stated that "The space and accommodations provided by three SP 14 type shop buildings and three E2-CR type classrooms are required."[58] In addition, it was necessary to have one or more administrative buildings located near the large shops.

On 31 January 1951, the Assistant Commandant of the Quartermaster School informed the Commanding General of Fort Lee of the buildings needed for airborne training and other purposes.[59] Some of these buildings were assigned to The Adjutant General's School and could not be made

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56 Told to the writer by Dr. Allen, 10 Sep 52 and Miss Samuels, 13 Oct 52.

57 DF, OIC, Abn Sup Instr Gp to Post Signal Officer, 10 Apr 51, sub: Relocation of Airborne Group (QM Sch) Activities. Lt Col Dodge stated that the move from T-1629 to T-1247 was "effective 14 March 1951." Probably the change was effective that date, but since correspondence through 20 Mar 51 is addressed from T-1629, it may be presumed that the move was not completed until after the 14th.

58 "SP 14 type shop buildings" are permanent-type shops (concrete foundations) with outside dimensions of 76' 1 1/2" in width and 270' in length. "E2-CR type classrooms" are exchange-type classrooms or buildings which have been converted from other uses to classrooms. Information supplied by Mr. William H. Stewart, Property Clerk, Real and Installed Property Section, Post Engineer, Fort Lee, Va. (20 Oct 52).

59 DF, Asst Commandant, QMS, to CG, Fort Lee, 31 Jan 51, sub: Building Assignments.

available until the AG School left for Fort Benjamin Harrison, Indiana in March.[60] The buildings requested were T-1237, T-1238, T-1227, T-1235, T-1236, and T-1247. In addition three shop classrooms were requested. These were Shop I (T-1214), then being used by the Post Quartermaster as a maintenance shop and Shops G and H, both unoccupied.

A recapitulation of building requirements as listed by the School on 31 January shows that it wanted one building for group headquarters (T-1247), two buildings for the use of instructors (T-1227 and T-1238),[61] three classrooms (T-1235, T-1236, and T-1237), and three shops (G, H, I). This request was slightly in excess of the cost study which did not include the two buildings for the use of instructors.

By 26 February, the buildings which required rehabilitation had become definite. By that date, it had been determined that Shop G was to be used for packing and rigging instruction, and Shop H for the teaching of maintenance and Shop B was substituted for Shop I as the site of instruction in cargo parachute packing and heavy equipment rigging subjects.[62] This was a somewhat less satisfactory arrangement

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60 The major part of the AG Sch left Fort Lee on 6 Mar 51. By the middle of March all elements of the School had cleared the Post.

61 Before the course began, however, Bldg T-1238 was listed as not needed in the Airborne Technical Course. DF, Lt Col A. E. Dodge to Asst Commandant, QMS, 7 Mar 51, sub: Buildings (other than shops) for QM Airborne Technical Course. T-1238 was subsequently conveyed to the QMTC, another Ft Lee activity, on 15 Nov 51. Information supplied by Mr. W. H. Stewart, Post Engineer Office (20 Oct 52).

62 Shop I, used as a motor maintenance shop, never was definitely assigned to the QMS. On 20 May 52, it was transferred to the Post Motor Pool. Shop B, previous to assignment to the airborne technical course, had been used by the QMS for canvas and webbing repair instruction. On 11 Apr 51 the paper transfer to the Airborne Technical Group was made. Information supplied by Mr. John G. Graham, Chief, Engr, Post Engineer, Fort Lee and Mr. William H. Stewart (20 Oct 52).

arrangement since it tended to scatter the instructional group. Shop B was located approximately one-quarter of a mile from Shops G and H; however, the difference between the cost of rehabilitating Shop B compared with Shop I was great enough to justify this decentralization, inconvenient though it may have been.[63]

The rehabilitation of buildings assigned to the Airborne Technical Course, other than shops, proved to be a minor concern since the repainting process would not delay the opening of the course. Shops B, G, and H were the main concern. They were in a poor state of repair and a large amount of installed equipment had to be removed before classes could begin.[64] The removal of equipment, cleaning, repainting, installing of fluorescent lights, and other changes took so much time that the opening of the course was delayed from 25 April to 16 May. On 20 March, the Post Engineer informed the School Commandant that Shop G, where the first class would be held, could not be completed until 15 May, and Shops H and B would not be ready until one and two months afterwards respectively.[65] The Post Engineer completed Shop G only a week before the first class was to begin. The building was completely bare and certain special items had to be installed by Airborne Technical Group personnel. This was done by late Saturday evening, 19 May, with classes scheduled to begin the next Monday morning.[66]

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63 Told to the writer by Dr. Allen, 10 Sep 52.

64 Told to the writer by Capt Eugene Grosseto, Supply Officer, Abn Gp, QMS, Fort Lee, Va., 28 Aug 52.

65 2d Ind to OQMG Ltr, 17 Feb 51, from Comdt, QMS, to TQMG thru the CG, Fort Lee, Va., 20 Mar 51.

66 Told to the writer by Capt Eddy, 17 Sep 52.

Essentially the same experiences were to be found in the other two shops. An anonymous typewritten account of the establishment of the course recalled that "Each phase was completed in turn and at times it seem /sic/ that the echo of the carpenter's hammer died at one end of the building as the students arrived in the other end."[67] The storage of supplies and equipment created a problem. At the time Shop G was set up, the supplies were in incompleted Shop H. When Shop H was ready to be set up the supplies were moved to Shop B. The remaining supplies again had to be moved from Shop B to Warehouse T-1209 or to Engineer warehouse T-176 before that shop could be used.[68]

The blame for this confusion cannot be placed upon any Fort Lee operating agency. Rather it can be attributed to the fact that insufficient time was allowed to prepare for the instruction due to the pressing demands to establish the course as quickly as possible. Cooperation

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67 From unpublished and unsigned account of the establishment of the course written by an instructor in the Airborne Group.

68 Told to the writer by Capt Grosseto, 25 Aug 52. See also DF, OIC, Abn Sup Gp, to Asst Dir of Tng, QMS, 13 Jun 51, sub: Annual Report for the Airborne Supply Group. This report mentioned the fact that Shop H was being readied for Class No. 1 to move in as of Mon, 18 Jun 51, and that Shop B would be ready when required. The number of the Engineer warehouse which the group used was found in DF, OIC of Abn Sup Gp to Dir of Tng, QMS, 19 Oct 51, sub: Equipment and Supply Storage Facilities. Reference to Warehouse T-1209 as assigned to the Abn Gp may be found in DF OIC, Abn Gp, to Dir of Sup & Serv, 13 Dec 51, sub: Transfer of Building and Responsibility.

between various agencies on the post was excellent; otherwise, the delay would have been greater.[69]

By the time the first class opened the following buildings were assigned to the new program:

| | |
|---|---|
| T-1247 | - Group Headquarters |
| T-1227 | - Instructor use. Used largely for the preparation of lesson plans and as a conference or briefing room. |
| T-1235 | - Instructor use and, after the course began, as a classroom. |
| T-1236 | - Classroom |
| T-1237 | - Classroom |
| T-1203 Shop B | - Aerial Delivery Phase |
| T-1210 Shop G | - Parachute Packing Phase |
| T-1212 Shop H | - Maintenance Phase |
| T-176 | - Warehouse |
| T-1209 | - Warehouse[70] |

There was one other serious building problem which had to be settled before the first class could assemble. This problem was student housing. It was solved on 5 May 51 with the activation of Headquarters

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69 Told to the writer by Capt Grosseto, 25 Aug 52, and Capt Eddy, 17 Sep 52. The OIC of the Abn Sup Gp (Lt Col Dodge) commended Post G-3, Post G-4, Post Quartermaster and Property Officer, Post Engineer, Post Transportation Officer, Post Ordnance Officer, COT, QMS Secretary, School Supply, School Trades Group, QMTTS, and Lt Col Chilson of the Airborne Battalion--in short, just about everyone who was connected with the course who "more than willingly cooperated" in getting the program started. DF, OIC, Abn Sup Gp to Asst Commandant (QMS), 22 May 51, sub: Commendation.

70 Info supplied by SFC Earl C. Kennedy, Instructor, Parachute Packing Section, Airborne Group, QMS, 21 Oct 52. See also DF , Asst Comdt, QMS, to CG, Fort Lee, 31 Jan 51. Building T-1235 was later found to be unnecessary in conducting the course and on 15 Nov 51 was transferred to the QMRTC to be used as a classroom. Info supplied by Mr. William H. Stewart, Post Engineer Office, 20 Oct 52.

and Headquarters Detachment, 3rd Battalion, 9135 Technical Service Unit (Airborne) to which was attached Company "D."[71] This arrangement for housing of enlisted students served from the first class to the present. Officer students were housed in post bachelor officer quarters.

## Equipment and Supplies for the New Program

The difficulties encountered in the securing of supplies and establishing a table of allowances (T/A) equalled those encountered in developing the table of distribution. The difficulties stemmed from several causes. First, the Quartermaster Corps had assumed a new function requiring, to a large extent, supplies and equipment with which it was unfamiliar. The supply of many of the items had been the responsibility of the Air Force until the Quartermaster Corps had assumed storage and issue responsibility for them. This indicated, among other things, that nomenclature and stock numbers of these items would have to be changed from Air Force to Army terminology. Second, the scope of instruction was much greater than that previously given at Fort Benning. Therefore, a new T/A must be developed to serve as a basis for issuing the equipment and supplies required for the course. Also a new table of allowances for expendable supplies had to be prepared. Third, the new instructor group, especially in the early period, was understaffed and, because of a multitude of other duties, was unable to devote sufficient time to solving the supply problems.

When Colonel Dodge was assigned to head the new Airborne Group on 20 September 1950, one of his first acts was to prepare a list of needed equipment. About a month later, the list was forwarded to the OQMG. As planning progressed, additional requests followed.[72] By the time of

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[71]GO 39, Hq, Fort Lee, Va., 5 May 51.

[72]OIC, Aerial Resupply Group, to Chief of Curriculum, QMS, 4 Jan 51.

the opening of the May class, articles ranging from paper to pencils to special sewing machines, cargo parachutes, and aerial delivery kits had been requisitioned. Supplies had been drawn from the Corps of Engineers, Ordnance Corps, Quartermaster Corps and Signal Corps and consisted of over 250 items which included 100 air-type items. As expected, the expendable supplies were fairly easy to obtain, although they were not all supplied in the quantities requested. The procurement of sewing machines presented the greatest difficulty since it was almost impossible to secure accurate technical information about these machines. It was not until the middle of June, when the maintenance phase of the PPM&AD Course began, that all the necessary machines and essential technical data were in the hands of instructors.[73]

In one area, the Airborne Group experienced little difficulty. This was in the obtaining of mock-ups (full scale replicas) of cargo aircraft fuselages to be used in teaching loading and lashing procedures. These were provided by personnel of the Quartermaster School. By the end of January 1950, the Airborne Group had received a mock-up of a C-82 aircraft and before the first class began, 3 mock-ups each of a C-119 and a C-124 had been put into use.[74]

Other difficulties were encountered in preparing parachute-packing, fabric-cutting, and shadow-box tables, all of which were needed in maintenance of airborne supply items and in teaching. The shadow-box was

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[73] DF, Lt Col Griffin, QMS, and Capt Bryant, OQMG, 14 Mar 51, sub: Requisition No. 44-055-1824-51.

[74] "QM School Notes," Quartermaster Review, XXX, No. 4, p. 4.

constructed with fluorescent lights placed below a special plate glass top and was used to inspect parachutes for tears, rips, and holes. Of all the tables, the ones presenting the chief problems were packing tables which were not stocked at army depots and had to be built in the Jeffersonville Quartermaster Depot. When the School received the tables early in March, only one-quarter of the number needed was supplied. This was due to the fact that the tables came in four sections each and the depot interpreted the number requested to be the number of sections requested.[75] Strenuous efforts were made by Jeffersonville to remedy the error and by 3 May, all but 6 of the 224 sections were on hand. Since the tables were shipped disassembled to save shipping space, personnel of the Airborne Group had to work overtime to put them together in time for the first class. The task was additionally complicated by ill-fitting parts.[76]

Supply problems continued to plague the Airborne Group planning up to the opening of the first class. In the effort to get together the proper types and adequate quantity of parachutes and heavy-drop kits, constant correspondence, telephone calls and teletype messages were exchanged between the Quartermaster School, Quartermaster Center, the OQMG, Richmond Quartermaster Depot, Jeffersonville Quartermaster Depot and Columbus General Depot. Nevertheless, serious shortages still existed

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[75] DF, Supply Officer, QM Abn, Tech Course, to School Supply Officer, QMS, 6 Mar 51, sub: Unfulfilled Requisitions.

[76] The remaining six were received on 5 Jul 51, after the program of instruction had begun. M/Sgt Jefferson, Abn Gp, QMS, 3 Nov 52.

in late April, only two weeks before the first class was to begin.[77] However, by 8 May the situation was growing steadily more serious and Col Dodge listed 56 items urgently needed by 10 May, 31 of which were considered very critically and urgently needed.[78] Fifty-six more items were requested by 1 June, 26 of which were considered as "critical"--34 items were needed by 1 July when Phase III of the course began. Quartermaster School officials appealed to the OQMG for assistance, as a result, by 21 May nearly all the material needed to instruct in Phase I was on hand at Fort Lee in time for the first class. During the following two months, the remainder of the equipment or acceptable substitutes arrived and was put to use.[79]

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77 An interesting instance of supply shortage and liaison with a depot may be obtained from a DF written by the Supply Officer, Abn Sup Instr Gp, to Supply Officer, QMS, on 2 Apr 51, sub: G-11 Parachute. In this letter the Supply Officer, Capt McFerran, mentions a trip to Richmond QM Depot made by three officers of the Group in order to clarify requisitioning of heavy drop kits. He then states that only two G-11 parachutes have been requisitioned for the course, whereas a G-11 parachute would be needed with each kit. Thus, a total of 27 would be needed instead of 2. This discrepancy was probably caused by misinterpretation. Furthermore, the School needed pilot and extraction chutes with each G-11. Apparently they thought that these parachutes were included in the request for G-11s. The Depot had meanwhile informed the Group that the pilot and extractor parachutes had to be ordered separately. In a small way, this represents the supply problem--a new and totally different type of equipment which the Quartermaster Corps had to put in immediate operation without sufficient time to set up an adequate cataloguing system.

78 Ltr, QMS to OQMG thru CG, Fort Lee, 4 May 51, sub: Expendable Supplies, Parachute Packing, Maintenance and Aerial Delivery Course.

79 Told to the writer by Capt Grosseto, 28 August 52.

The arrival of supplies and equipment had been too close for comfort. Certain types of parachutes and drop kits had not been furnished; however, a sufficient quantity had been made available to begin the class. Of a more serious nature was the lack of a published table of allowance for equipment and expendable items. Thus, no official authority existed against which the Quartermaster School could make subsequent requisitions.[80] This was subsequently corrected when the Department of the Army revised T/A 10-2, Quartermaster School, Technical Training Service, and Demonstration Unit.

### Aircraft, Airport Facilities and Drop Zone

If the new course of instruction were to have any value, it must include practical training in the aerial delivery of supplies and equipment. This meant that aircraft would be required by the instructional group. A landing field and a drop zone, preferably a short distance from the landing field, would both be needed.

One of the airfields considered for use was owned by the City of Petersburg, Virginia. Because it was situated eleven miles from the School, and the fact that it was not under Federal control, its lack of buildings and facilities, and the poor condition of runways, the idea of using it was abandoned early in 1951.[81] A helicopter survey

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[80] DF, OIC, Abn Sup Gp to School Supply Officer, 20 June 51, sub: Authorized Allowances, Expendable Supplies, PPM&AD Courses.

[81] Ltr, Hq, Fort Lee to CG, 2d Army, Fort George G. Meade, Md., thru CO, Camp Pickett, Va., 19 Feb 51, sub: Use of Landing Field and Drop Zone.

was undertaken of the 200 square miles around Fort Lee and 10 potential aerial delivery dropping sites were located.[82] There was a good site for a drop zone at A.P. Hill Military Reservation but since there was no airfield nearby, it was ruled out. Camp Pickett, although 42 miles away, possessed the required facilities and it was selected on 23 January as the drop zone site (see illustration).[83] The nearness of the Blackstone Army Airfield where aircraft could take off and land was apparently the deciding factor for the selection.

Approval was obtained for the use of the field and, on 19 February, work began on improving the airfield, clearing the drop zone, and repairing the facilities. Little work was required on the runways. An observation tower was constructed and a grandstand erected.[84]

Only the matter of obtaining cargo aircraft to be used in making the air drop of supplies remained to be resolved. Neither Fort Lee nor the Quartermaster School had airplanes nor was it feasible to ask for the assignment of aircraft to them when they would only be needed for a few days each month. Three planes were needed and the most logical

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82 Ltr, QMS to CO, 5th Coast Guard District, thru CG, Ft Lee, Va., 1 Dec 50, sub: Appreciation and Ltr, OIC Aerial Resupply Group to Cmdt, QMS, 12 Jan 51, sub: Drop Zone for Aerial Resupply Course.

83 Ltr, Hq, Fort Lee, 19 Feb 51 and 1st Ind, Hq, Camp Pickett, Va., to CG, 2d Army, Fort George G. Meade, Md., 26 Feb 51 and 2d Ind, CG, 2d Army, Fort George G. Meade, Md., to CG, Fort Lee, Va., 30 Mar 51.

84 Ltr, Ft Lee to CG, Camp Pickett, Va., 5 Jun 51, sub: Budget Requirements for Fiscal Year 1952. Telecon between Lt Col Dodge, OIC, Abn Gp, QMS and Mr. Eubank, Post Engineer's Off, Camp Pickett, Va., 30 Nov.



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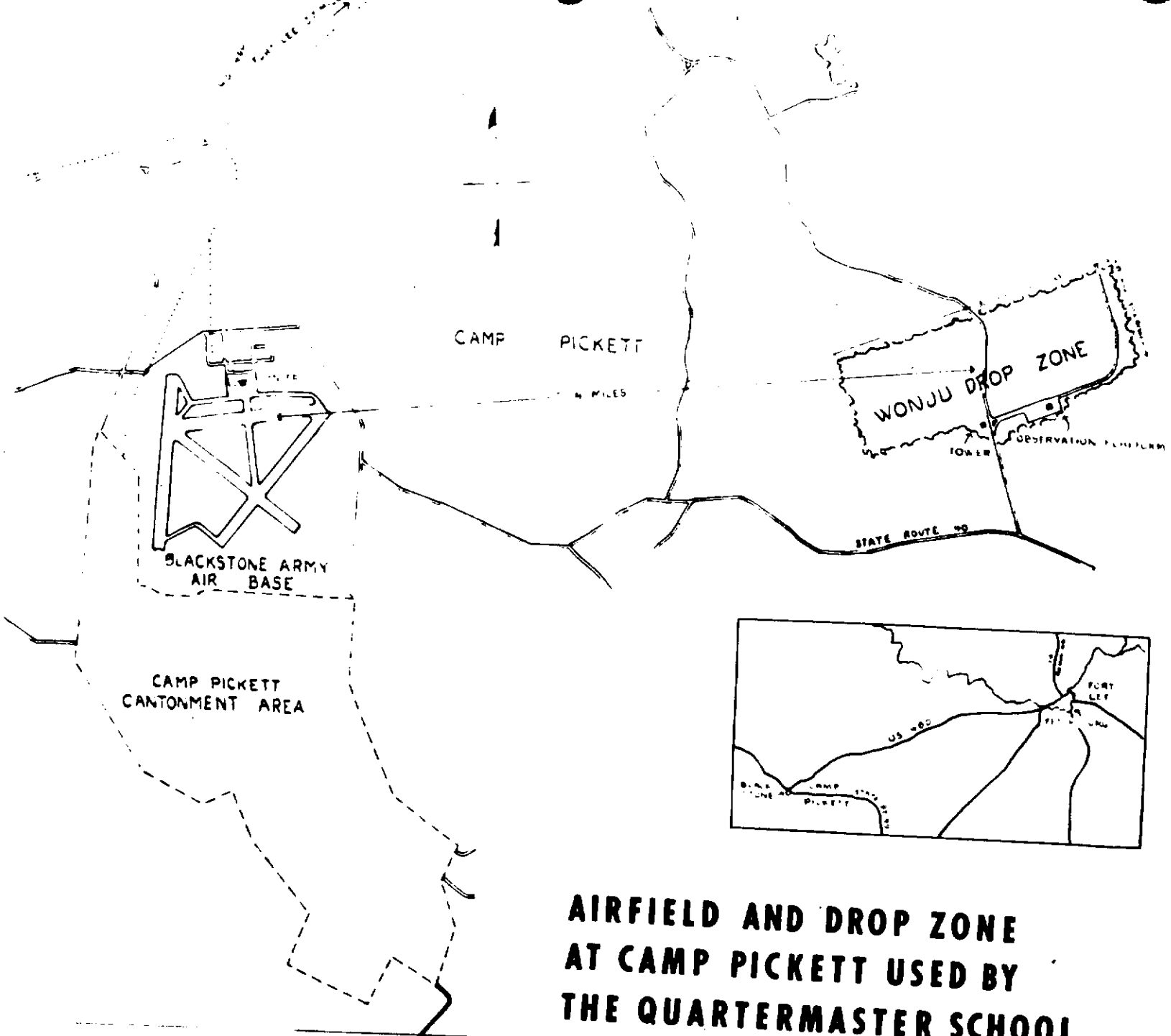


**AIRFIELD AND DROP ZONE AT CAMP PICKETT USED BY THE QUARTERMASTER SCHOOL**

source was the Air Force. Negotiations were begun at once through the United States Air Force Liaison Officer stationed at Fort Lee to provide cargo aircraft for the personnel jump during the third week and the heavy drop during the twelfth week of instruction.[85] Both the Chief, Army Field Forces and the representatives of the Chief of Staff, USAF concurred and the aircraft was supplied as they were needed.[86] An SOP for requesting aircraft was soon prepared and although it was modified somewhat as the months went by, it remained substantially the same during the life of the Airborne Group. Aircraft were requested on what amounted to a form letter, using information supplied by the Quartermaster School, and sent to the Chief, Army Field Forces, with information copies to the Commanding General, XVIII Airborne Corps and Eighteenth Air Force. In this manner the aircraft were furnished as they were needed by the Quartermaster School to present the course.[87]

## Some Minor Administrative Problems

In addition to the six major problem areas which the Quartermaster School encountered in establishing the airborne courses of instruction, several minor administrative problems arose. Of these, the selection of

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85 DF, OIC, Abn Sup Instr Gp, to Air Force Liaison Officer, Fort Lee, Va., 13 Apr 51, sub: Aircraft Requirements.

86 Ltr, QMS, to CG, AFF, Fort Monroe, Va., thru CG, Fort Lee, Va., 23 May 51, sub: Request for Troop Carrier Aircraft with Five Indorsements Thereto.

87 OCAFF Cir, 15 Aug 51, sub: Procedure for Requesting Troop Carrier Aircraft.

an appropriate name for the organizational entity conducting the instruction, changes in the duties of the enlisted MOS, and resolution of the question of the parachute status of assigned personnel emerged as the three most important of these problems.

At various times, the organizational element of the Quartermaster School responsible for conducting the airborne courses was known as the "Airborne Technical Group," "Airborne Supply Instructor Group," "QM Air Support Group," and "Aerial Resupply Group." In fact, it was not until late March of 1951 that a name was decided upon by the School, and this was changed slightly more than a year later.

In the early days of planning the program, Lt Colonel Dodge signed his correspondence as "OIC, Aerial Resupply Group," or simply (without mentioning OIC) as "Aerial Resupply Section" or, again, as "OIC, Airborne Group."[88] From mid-November 1950 to late January 1951, correspondence was consistently signed as coming from the "Aerial Resupply Group." Throughout February and into March, Lt Colonel Dodge signed papers as "OIC, Quartermaster Airborne Technical Course." Then on 12 March 1951, he changed the designation to read "OIC, Quartermaster Airborne Maintenance, Packing and Aerial Delivery Course," and in another Disposition Form written on the same date he signed as "OIC, Parachute Packing, Maintenance and Aerial Delivery Course." Two days later it was changed to "OIC, Parachute Maintenance and Aerial Delivery Course."

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[88] DFs, Lt Col Dodge, to various individuals, 26 Oct 50, 31 Oct 50, 1 Nov 50, 9 Nov 50, and 15 Nov 50.

In order to clear up this confused situation, Dodge recommended that the official name of the group be "The Quartermaster (QM) Air Support Group."[89] One week later, on 21 March, the School Secretary announced that "the official designation will be "Airborne Supply Group."[90] This was followed on 23 March 1951 by an Inter-Office Memorandum which established the "Airborne Supply Instructor Group."[91] Upon receipt of that memorandum, the official designation was used until the latter part of April of that year when the word "Instructor" was dropped to conform to other groups in the School.[92]

At this point, it would be well to continue this account of the name of the Group to the present writing. In October 1951, the word "Supply" had been dropped from correspondence originating from the Group and it was known simply as the Airborne Group. This name was made official on 13 May 1952.[93] From that date airborne training has been conducted by the Airborne Group (later redesignated Airborne Department) of the Quartermaster School.

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[89] DF, OIC, PPM&AD Course to Chief of Instruction, Chief of Curriculum, School Sec, Asst Comdt, and Comdt, 14 Mar 51, sub: Instructional Group Name for QM Airborne Technical Course.

[90] Comment No. 2, School Sec to OIC, Air-Tech Course, 21 Mar 51 to DF from OIC, PPM&AD Course, 14 Mar 51.

[91] Inter-Office Memo No. 19, The QM Sch, 23 Mar 51.

[92] (1) DF, Dir of Tng to OIC, Abn Sup Gp, 20 Apr 51, no sub; (2) DF, Sup Officer, Abn Sup Gp to Mr. Myers, Sch Sup, 27 Apr 51, sub: Supply Information.

[93] Info furnished by Lt Jesse C. Evans, Planning and Control Office, QMS (19 Sep 52). The change was officially made in Staff Memo No. 20, The QM Sch, 13 May 52.

The need for a revision in the assigned duties of Parachute Packer and Repairman (MOS 0620) was apparent long before the course began. As early as 11 October 1950, the Commandant of the Quartermaster School requested The Quartermaster General to make certain changes in this MOS, pointing out that the present list of duties, as well as those soon to be published in SR 615-25-15 fell far short of those actually required of the Parachute Packer and Repairman.[94] In particular, they failed to provide for the following duties:

a. Inspection, packing, repair, maintenance and use of all types of troop and cargo parachutes, aerial delivery containers, heavy drop kits and other air supply equipment.

b. Packing, loading and securing all types and classes of supplies and cargo for aerial delivery into aircraft and gliders.

c. Ejecting cargo in flight and recovering dropped items of equipment.[95]

A survey of the missions and capabilities of existing Quartermaster air supply, maintenance, repair, and packing companies revealed that these three duties were required of parachute packers and repairmen in the field. Therefore, the Quartermaster School intended to teach them in the new course and requested that the MOS be broadened to cover these duties, all of which were concerned with some phase of aerial supply and delivery of cargo.

The suggestion to enlarge the prescribed job duties of the parachute packer and repairman was considered by The Quartermaster General. He

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[94] TM 12-427 was superseded by SR 615-25-15, Enlisted Personnel, Military Occupational Specialities, 15 Nov 50.

[95] Ltr, QMS to TQMG thru CG, Fort Lee, Va., 11 Oct 50, sub: Revision of MOS 0620, Parachute Rigger and Repairman.



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agreed and recommended approval of the changes to The Adjutant General.

Late in February 1951, the request was returned to the Quartermaster School for a detailed description of the proposed MOS changes. This was done and returned to the Office of The Quartermaster General on 18 April.[96] The School assumed that the revised duties would appear as the first change to SR 615-25-15 and widened the scope of the POI to include the new duties.

The first change to SR 615-25-15 was published on 19 July 1951, nearly two full months after the first class had started. Even then, late as it was for the purposes of the School, it did not completely revise the MOS as had been hoped. Instead it kept the description found in the SR as originally published and added the following clause to the summary: "...and participates in aerial resupply activities." A paragraph defining this clause was then added to the description of duties.[97]

Although this was something of a disappointment to School officials, they could take some consolation from the fact that the change did include the field of aerial delivery and supply. That, after all, was the most important part of their recommendation.

The problem of incentive pay for parachutists was more of an annoyance than a menace to the program. Nearly all of the men who were assigned to Fort Lee in early 1951 as instructors or administrative personnel were qualified as parachutists. As such, they were authorized to receive extra incentive pay provided that they met the minimum requirements by making a

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96 Ltr, QMS to TQMG thru CG, Fort Lee, Va., 18 Apr 51, sub: Suggested Revision of MOS 1620 and 4620.

97 Change 1 to SR 615-25-15, 19 Jul 51, p. 12.

parachute jump every three months. The Commandant of the Quartermaster School could not issue orders requiring parachute jumping and therefore, these parachutists could not draw the extra pay. This matter was resolved in March 1951 when the AC of S, G1, GSUSA, authorized the Commandant of a School teaching parachute packing, rigging, and maintenance to order jumps.[98]

Upon receipt of this authority the Commandant of the Quartermaster School informed the Commanding General of Fort Lee of the officers and enlisted men, by name, who would be required to perform jumps in connection with airborne training. This provided all of the authority that was necessary for the payment of qualified personnel.[99]

By the middle of May 1951, all that could have been done had been done at Fort Lee. The Quartermaster School was ready to carry out its mission of teaching the Parachute Packing, Maintenance, and Aerial Delivery Course. The Airborne Supply Group had even been placed on the new organization chart of the Quartermaster School (see figure 4). The preparation had been completed, the students were beginning to assemble, and instruction could begin.

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[98] DF, TQMG to AC of S, G-1, ATTN: Maj Gen Byers, 23 Mar 51, sub: Parachute Status for QM Sch Airborne Courses of Instruction. Comment No. 2, Chief, Class and Standards Br, C-1, to TQMG, 29 Mar 51, sub: Parachute Status for QM School Airborne Courses of Instruction.

[99] DF, Comdt, QMS, to CG, Fort Lee, Va., 12 Apr 51, sub: Incentive Pay.

FIGURE 3

ORGANIZATION OF THE QUARTERMASTER SCHOOL, 9 AUGUST 1950 (Before the establishment of Airborne Supply Group)

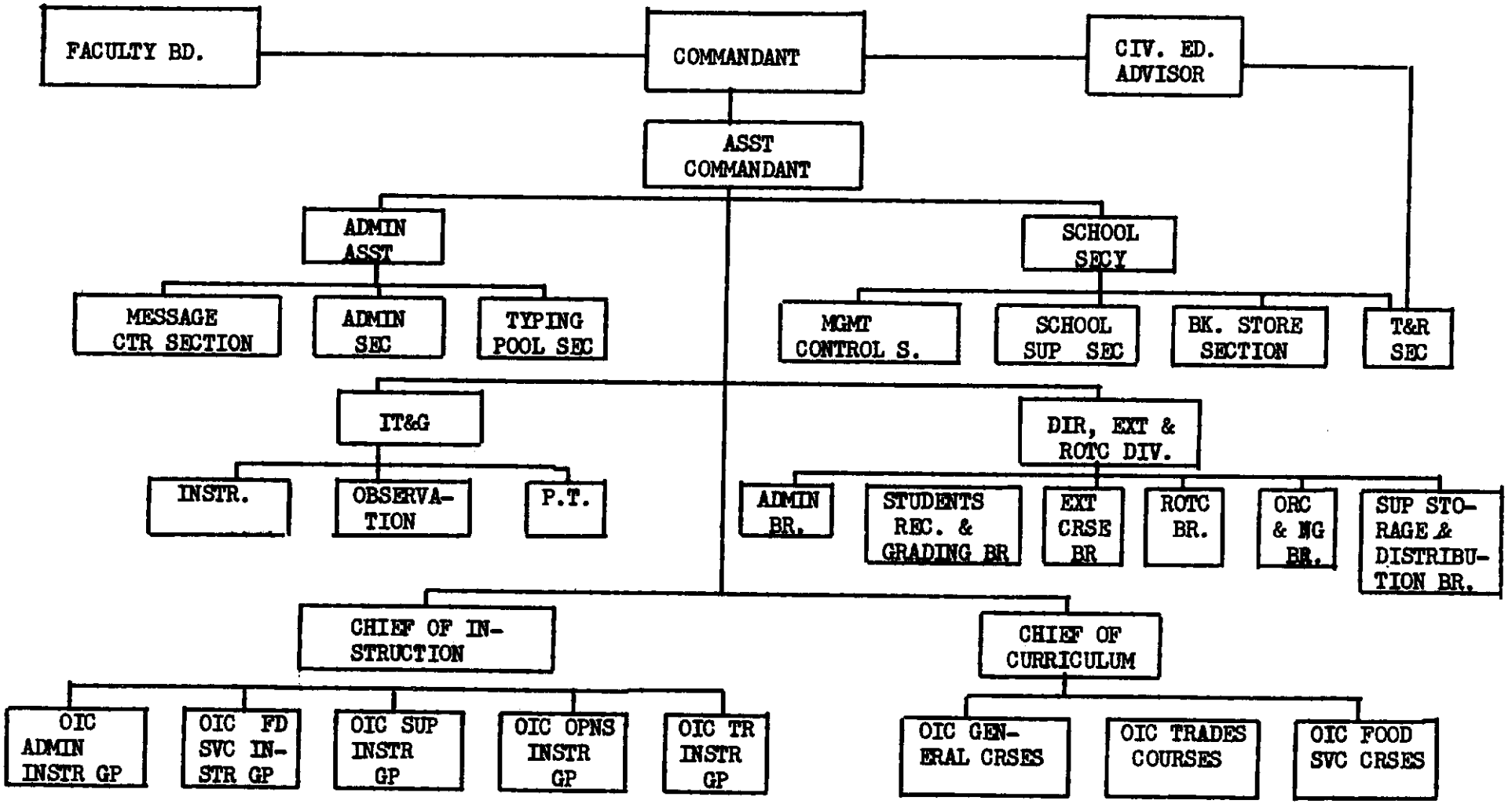
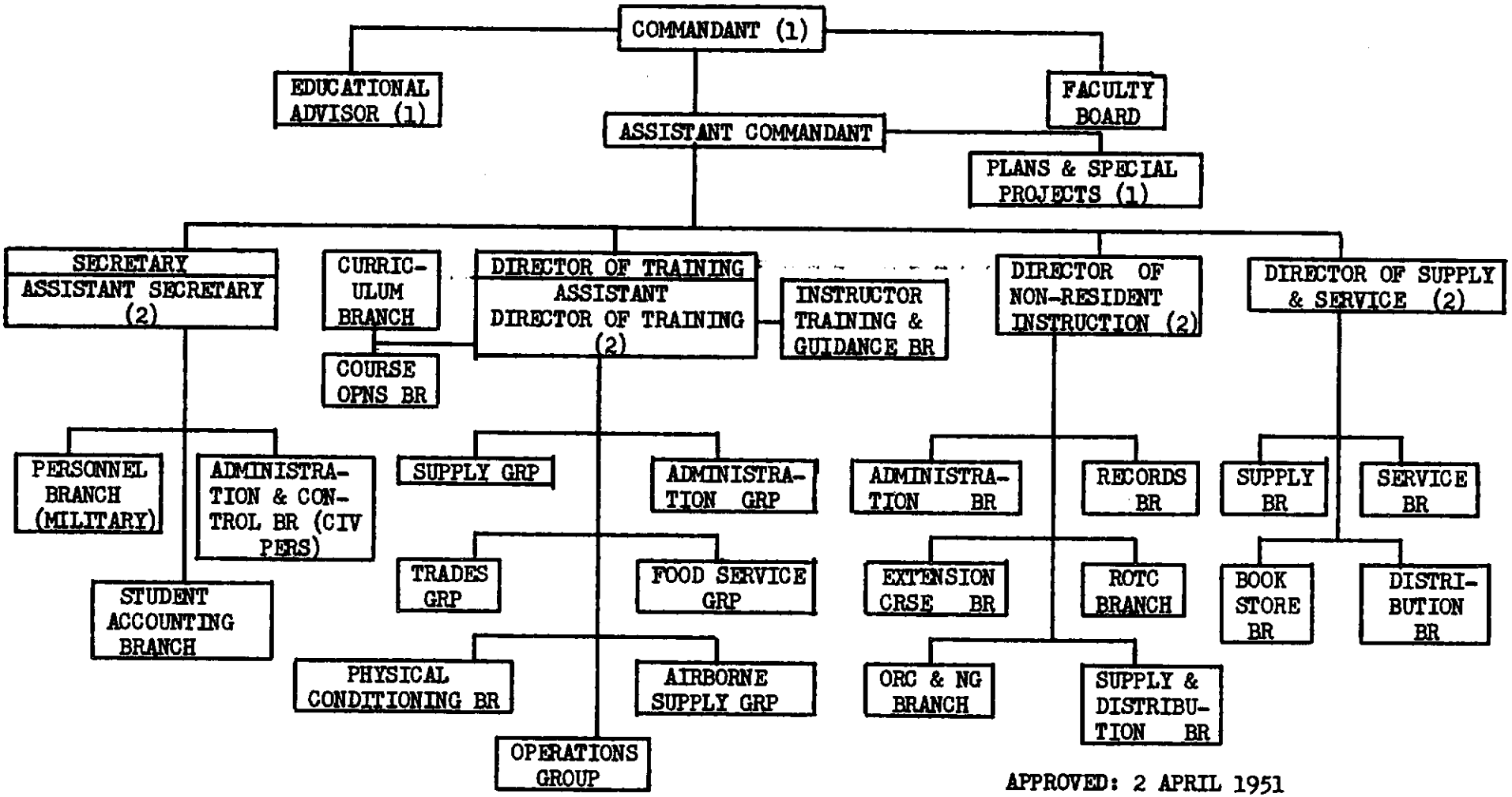


FIGURE 4

ORGANIZATION OF THE QUARTERMASTER SCHOOL, 2 APRIL 1951
(After the Establishment of Airborne Supply Group)




APPROVED: 2 APRIL 1951

## CHAPTER IV

## THE AIRBORNE COURSES OF INSTRUCTION, 1951-1953

With the end of the preparatory stage, the Quartermaster airborne courses of instruction literally got off to a flying start when, on 21 May 1951, Quartermaster General Herman Feldman and Colonel (later Lieutenant General) A. T. McNamara, Commandant of the Quartermaster School travelled to the scene of the opening ceremonies by helicopter. The helicopter was borrowed from the United States Marine Corps at Quantico, Virginia, and took off from Fort Lee Headquarters to land a few minutes later at the north end of the post where the ceremonies were held. General Feldman was the keynote speaker for the beginning of the new course. He heralded the airborne role of the QMC as a milestone in its history and traced the developments which led to the assignment of the mission to the Corps.[1]

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[1] Major General James Gavin, Director of Weapons System Evaluation Group, Office of the Secretary of Defense had been scheduled to speak but bad weather grounded his aircraft on the day of the ceremonies and he could not attend. Bad weather also kept Maj Gen (later General) Lyman L. Lemnitzer, CG, 11th Airborne Division; Maj Gen (later General) Thomas F. Hickey, CG, 82d Airborne Division; and Maj Gen John H. Church, CG, Infantry Center from attending the ceremonies. The text of General Feldman's speech is included as Appendix F.

At the conclusion of General Feldman's speech, Colonel McNamara concluded the program with his evaluation of the importance of the new mission of the Quartermaster School.

> The Quartermaster Corps had its origin at the very beginning of the American Revolution. It has participated in all of our country's wars. Its supply lines have reached thousands of miles across the world. Now these supply lines are carried into the air in a new and bold mission. It will be your privilege to participate in this great aerial adventure.[2]

A few minutes later, 4 officers and 55 enlisted men began the Parachute Packing, Maintenance, and Aerial Delivery Course.

The Parachute Packing, Maintenance, and Aerial Delivery Course

The basic airborne course of instruction presented at the Quartermaster School from 1951 to 1954 was the comprehensive three-month Parachute Packing, Maintenance, and Aerial Delivery Course. Although it underwent changes and revisions from time to time, these proved relatively minor in scope until August 1952. During the first 15 months of its existence, it remained essentially as proposed in February of 1951--twelve weeks of training embracing some 528 hours of work. Phase I, Parachute and Container Packing, consisted of 120 hours; Phase II, QM-Air Equipment Maintenance, 160 hours; Phase III, Aerial Resupply, 140 hours; and Miscellaneous subjects comprising physical conditioning, troop information hours, and time reserved for Quartermaster School Commandant and Unit Commandant, took the remaining 108 hours.[3]

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[2] Lee Traveller, Vol 11, No 44, 22 May 51, p. 1.

[3] See Chap III.

The students spent the first three and one-half weeks (Phase I) in Shop G. The layout of this teaching area was relatively simple. Along one side of the building were fifty parachute packing tables placed at right angles to the wall. Each measured three feet wide by forty feet long. The 270-foot length of the shop was nearly filled by these packing tables. Located midway of the shop on the left side was a grandstand with a seating capacity of 100. A packing table set in front of the stand served for demonstrations of packing techniques. Parachute storage bins and displays were also located on the left side of the shop near the grandstand.

The students took six subjects in Phase I:

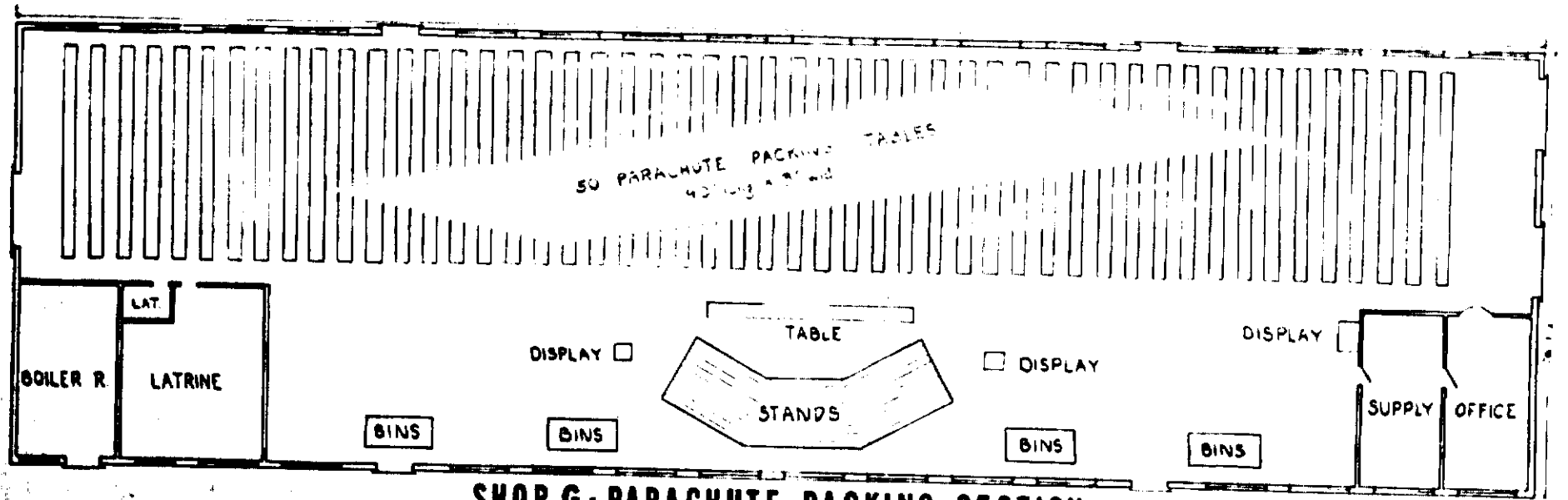
a. Troop Type Parachute Packing (69 hours) - Introduction to parachutes and aerial delivery containers and familiarization in the description, construction, packing procedures, and adjustment of the troop type parachute.

b. Free Type Parachute Packing (12 hours) - Familiarization in the description, construction, packing procedures, and adjustment of free type parachutes.

c. Aerial Delivery Parachute Packing (13 hours) - Familiarization in the description, construction, and packing procedures of aerial delivery parachutes.

d. Aerial Delivery Containers (10 hours) - Familiarization in the description, construction, and the uses of aerial delivery containers.

e. Organizational Parachute Packing (8 hours) - Team packing techniques.




SHOP G - PARACHUTE PACKING SECTION

The student parachute jump concluded Phase I of the training and was held at the Wonju Drop Zone, Camp Pickett, Virginia.[4]

During Phase II students received practical instruction in types of parachutes. By far the greatest effort was spent on the T-7 Main, a troop type parachute with a 28-foot diameter. The parachutes used in this phase are shown in figure 5.

Parachute packing is a subject which literally involves life and death. This philosophy permeated all phases of instruction. Each student must be so proficient in packing a parachute that he would be willing to entrust his life to it. This requirement was somewhat unique. In few other courses were students called upon to take his life in his own hands as a part of a final examination, but it was done in Phase I of the Parachute Packing, Maintenance, and Aerial Delivery Course from its inception. If a student refused to make the jump, he was dropped from the course and faced possible courts-martial action.

The seriousness with which parachute packing was regarded was evidenced by the preparation of the "Rigger's Pledge" (see fig. 6) and the fact that it was displayed wherever airborne training was being presented in the School. Several common types of aerial delivery containers were studied in Phase I. These are shown in figure 7.

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[4] POI, PPM&AD Course, May 51. See also POI, PPM&AD Course, Feb 52.

FIGURE 5

TYPES OF PARACHUTES USED IN PHASE I, PARACHUTE PACKING, MAINTENANCE, AND AERIAL DELIVERY COURSE, 1951-1952

| Nomenclature | Material | Diameter | Brief Description |
|---|---|---|---|
| T-7 Main | Nylon | 28 feet | Troop type |
| T-7 Reserve | Nylon | 24 feet | Troop type |
| B-12 | Nylon | 24 feet | Back type |
| B-8 | Nylon | 24 feet | Back type |
| G-1 | Rayon | 24 feet | Cargo type |
| G-13 | Cotton | 24.25 feet | Cargo type |

FIGURE 6

RIGGER'S PLEDGE

I WILL keep constantly in mind that until men grow wings their parachutes must be dependable.

I WILL pack every parachute as though I am to jump with it myself, and will stand ready to jump with any parachute which I have certified as properly inspected and packed.

I WILL remember always that the other man's life is as dear to him as mine is to me.

I WILL never resort to guesswork, as I know that chance is a fool's god and that I, a parachute rigger, cannot depend upon it.

I WILL never pass over any defect, nor neglect any repair, no matter how small, as I know that omissions and mistakes in the repair and packing of a parachute may cost a life.

I WILL keep all parachute equipment entrusted to my care in the best possible condition, remembering always that little things left undone cause major troubles.

I WILL never sign my name to a parachute inspection or packing certificate unless I have personally performed or directly supervised every step, and am entirely satisfied with all the work.

I WILL never let the idea that a piece of work is "good enough" make me a potential murderer through a careless mistake or oversight, for I know there can be no compromise with perfection.

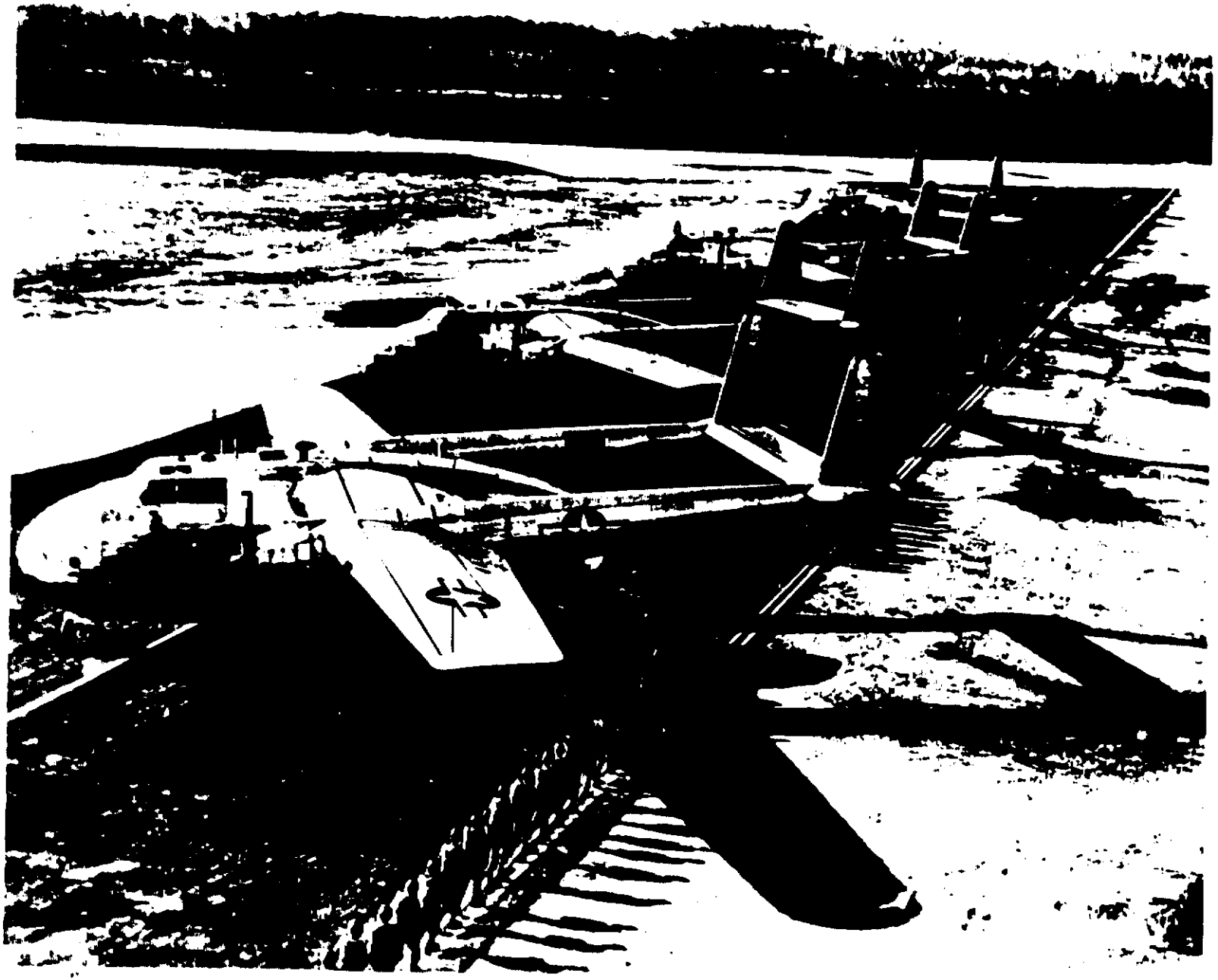
I WILL keep always a wholehearted respect for my vocation, regarding it as a high profession rather than a day-to-day task, and will keep in mind constantly my grave responsibility.

I WILL be SURE--Always

FIGURE 7

AERIAL DELIVERY CONTAINERS USED IN PHASE I, PARACHUTE PACKING, MAINTENANCE AND AERIAL DELIVERY COURSE, 1951-1952

| Nomenclature | Material | Size | Maximum Load |
|---|---|---|---|
| Type A-4 A/D Container | Canvas | 12" x 24" x 30" | 200 lbs. |
| Type A-5 A/D Container | Canvas | 15" x 56" x 18" | 300 lbs. |
| Type A-6 A/D Container | Corrugated fiber carton | 12" x 12" x 30" | 300 lbs. |
| Type A-7 A/D Container | 2 web slings | 118" long | 300 lbs. |
| Type A-7 A/D Container Modified | 2 ≠ 4 web slings | 188" long | 300 lbs. (2 web sling with G-1)<br>400 lbs. (3 web slings with G-13)<br>500 lbs. (4 web slings with G-13) |
| Type A-10 A/D Container | Cargo Net | 9' x 9' | about 300 lbs. |
| Assault Container A-21 | Cotton duck | 98" x 116" (inner cotton liner) | 500 lbs with G-13 parachute<br>300 lbs with G-1 parachute |
| Adjustable Rifle Container | Cotton duck | 52" x 10" | |
| Adjustable Equipment Bag | Cotton duck | 22" x 42" | 90 lbs. |

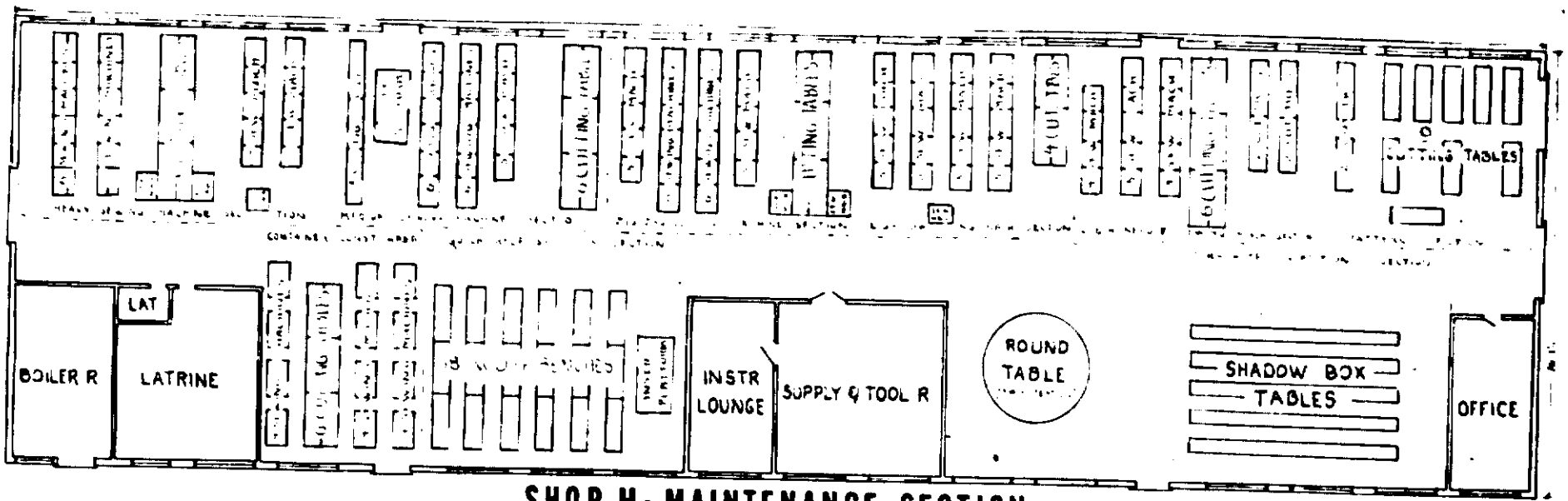


Airborne soldiers loading for a required parachute jump.

Upon completion of the parachute packing phase of instruction, the students progressed to Phase II, QM-Air Equipment Maintenance. This phase lasted approximately four and one-half weeks. Training was conducted in Shop H adjoining Shop G, although some classes in basic maintenance were given in Building T-1236. The great variety of machinery that was used in Phase II necessitated a more complex arrangement in Shop H than that required in Shop G. Early plans had called for dividing the building into sections by means of curtains. This would have had the effect of making the shop into a series of small classrooms. This plan was discarded because it would have reduced the flexibility necessary to meet changes in the program of instruction that would occur from time to time. It would also increase the time and expense involved and delay the completion of the building for the first class. When the course began, Shop H was divided into ten sections, each capable of handling a group of twenty students.

The right side of the shop was occupied by six of the ten sections (see illustration). In order, from front to rear, they were pattern section, two- and four-needle sewing machine section, light sewing machine section, zig-zag sewing machine section, medium sewing machine section, and heavy sewing machine section. The left side, in addition to the administrative, service, and maintenance rooms, comprised the parachute inspection section, a large round table used to demonstrate parachute repairs, the quick release box section, and the container construction area. Each of these sections was equipped with all the devices

Airborne troops making their exit from a C-47 aircraft during a practice parachute jump.




SHOP H - MAINTENANCE SECTION

needed for instructional purposes. Thus, the zig-zag sewing machine section had twenty-two 17W15 zig-zag machines arranged in four rows, plus six cutting tables arranged in two rows with two additional machines of types related to the 17W15 located at the end of the rows. As another example, the quick release box section had 18 work benches arranged in six rows. In addition, there was a platform to be used by the instructor for remarks and demonstrations.

The QM-Air Equipment Maintenance Phase consisted of five subject areas. They are listed here as given in the Program of Instruction but not all students took them in this order. During Phase II the large class was broken into five equal size groups and a "county fair" type of instruction ensued.[5] The following subjects were taught:

a. Basic Maintenance (18 hours) - The Department of the Army Maintenance System; construction of parachutes and equipment containers; repair materials and hand tools; stitches, seams, and knots; and hand tacking.

b. Inspection and Classification (10 hours) - The fundamentals of initial inspection and classification of parachutes and allied equipment; methods of testing materials to determine condition and type to enable proper classification; and the procedure in accomplishing the final inspection to determine acceptability of completed repairs.

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[5] AR 320-5 defines "county fair" as a "method for instructing or examining large numbers of men whereby groups of attending personnel rotate from one to another of a series of continuous demonstrations."

STUDENT INSPECTING A T-7 CANOPY ON AN INSPECTION TABLE.

c. Sewing Machine Operation (32 hours) - Types of sewing machines and general operating techniques; control and production methods; exercises in the insertion of work, removal of work and the application of machine sewn seams. Reinforcing seams; superposed seams; lap seams; ornamental seams and edge finishing.

d. Parachute and Allied Equipment Repair (55 hours) - Techniques of and exercises in repairing parachute canopies, pack tray assemblies, bridle loops and cords, pack cover assemblies, pilot parachutes, quick release boxes and pads, channel seams, equipment and cargo containers; the replacement of parachute harness assemblies, pack tray assemblies, rip cord housings, pilot parachutes, hooks, fasteners and grommets, and the manufacturing of bridle loops, pilot parachute cords and reserve pack opening elastics.

e. Equipment Modification and Overhaul (45 hours) - The techniques of and exercises in the replacement of parachute suspension lines; panel sections; major overhaul of large cargo canopies and containers. Accomplishment of currently directed modifications to parachutes and allied equipment.[6]

When the students had completed this phase they were familiar with the construction of parachutes and the hand tools used in maintenance work. They had been trained to use all of the sewing machines used in the Army parachute maintenance shops (see fig. 8). Furthermore, they

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[6] Ibid.

FIGURE 8

SEWING MACHINES USED IN PHASE II, PARACHUTE PACKING, MAINTENANCE, AND AERIAL DELIVERY COURSE, 1951-1952

| Nomenclature | Number | Brief Description |
|---|---|---|
| A. Machines used by students: Light Duty Sewing Machine | 111W151 | High speed, single needle, lock stitch |
| General Utility Sewing Machine | 111W155 | High speed, single needle, lock stitch |
| Multiple Needle Sewing Machine | 112W116 | Double needle, lock stitch |
| Multiple Needle Sewing Machine | 131W113 | Four needle, lock stitch (not taught after summer of 1952) |
| Zig-Zag Sewing Machine | 17W15 | Zig-Zag rotary, lock stitch |
| Heavy Duty Sewing Machine | 97-10 | Single needle, lock stitch, slow speed |
| Heavy Duty Sewing Machine | 7-33 | (same as 97-10) |
| B. Machines used by instructors for demonstration purposes: | | |
| Light Duty Sewing Machine | 55-5 | Single needle, chain stitch (not taught after 27 May 1952) |
| Medium Duty Sewing Machine | 68SV69 | Single needle, hook attaching (not taught after 27 May 1952) |
| Medium Duty Sewing Machine | 68SV70 | Single needle, hook-eye attaching (not taught after 27 May 1952 |
| Medium Duty Sewing Machine | 31-19 | Single needle, lock stitch |
| Zig-Zag Sewing Machine | 143WSV14 | Zig-Zag rotary, lock stitch |
| Shoe Patching Sewing Machine | 29K70 | Single row, lock stitch, used for sewing leather (replaced by 29K71 on 27 May 52) |
| Shoe Patching Sewing Machine | 29K71 | Single row, lock stitch, used for sewing leather |

knew how to fasten grommets, repair pack tray assemblies, and do many other things necessary to keeping parachutes ready for use. In short, after completion of Phase II, they were prepared to perform both field and depot maintenance on airborne items.

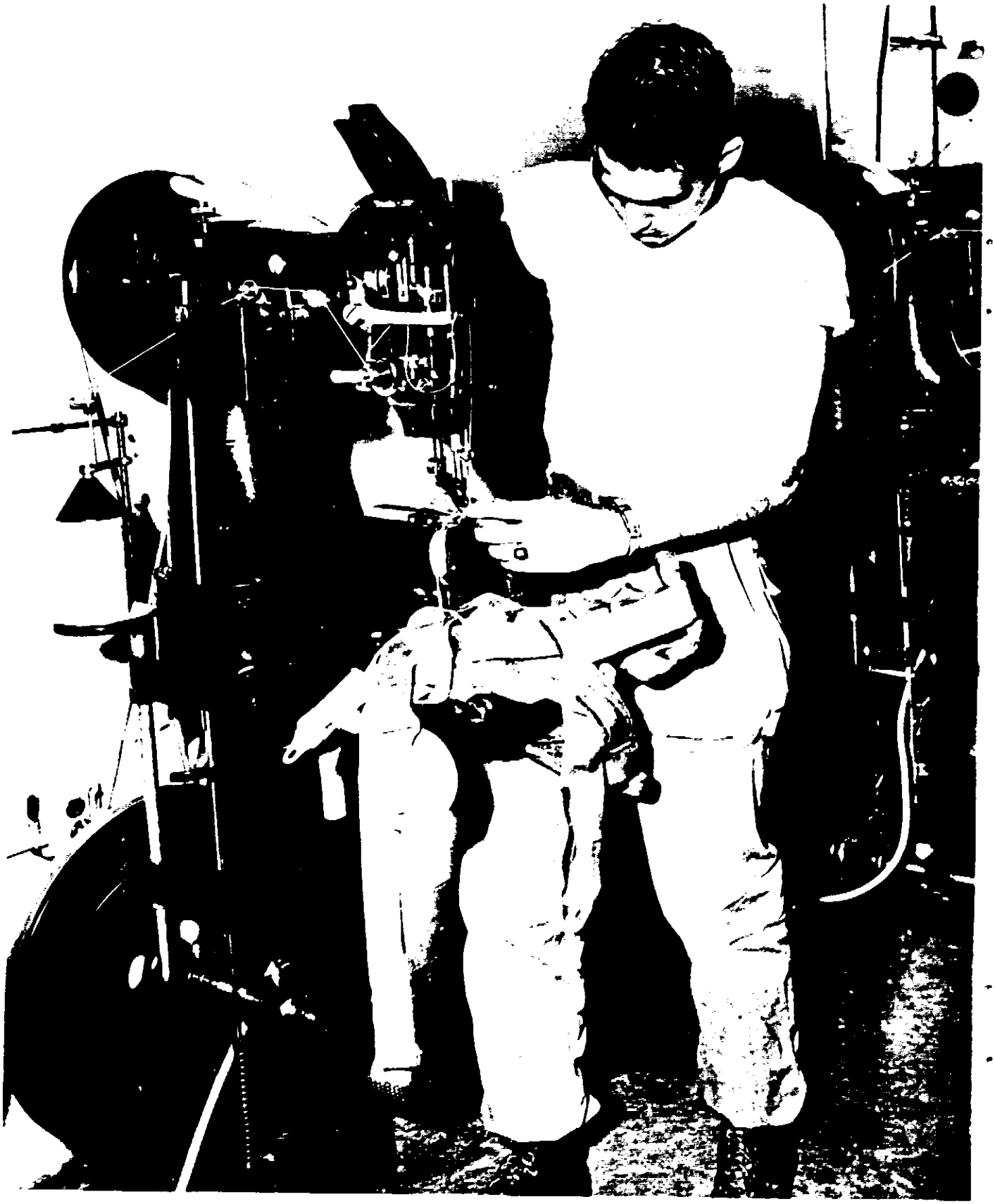
Phase III, Aerial Resupply, was conducted at Shop B, about one - quarter of a mile from G and H, with some portions of instruction on air transportability being taught in Building T-1236 and some loading and lashing exercises in the outdoor Mock-Up Area.

The arrangement of Shop B is difficult to picture or to describe (see illustration). Since large pieces of equipment, such as trucks, howitzers, load-bearing platforms, and G-11 parachutes with diameters of up to 100 feet were used, the interior of Shop B was kept as clear as possible of obstructions. Various sections of the shop were devoted to instruction in different types of containers. The right half of the shop was used for packing of large cargo chutes. At other times, it was used for rigging aerial delivery kits and containers.

Four subjects were taught in this third and final phase. These were:

a. Air Transportability Subjects (28 hours) - Introduction to and familiarization with cargo aircraft; flight rules and safety precautions; basic computation of loads, ropes and knots; theory of lashing; special tie-down devices; loading and lashing equipment.

b. Free Drop Techniques and the 2200 lb. Container (4 hours)- Current possibilities and future trends of free drop techniques; free

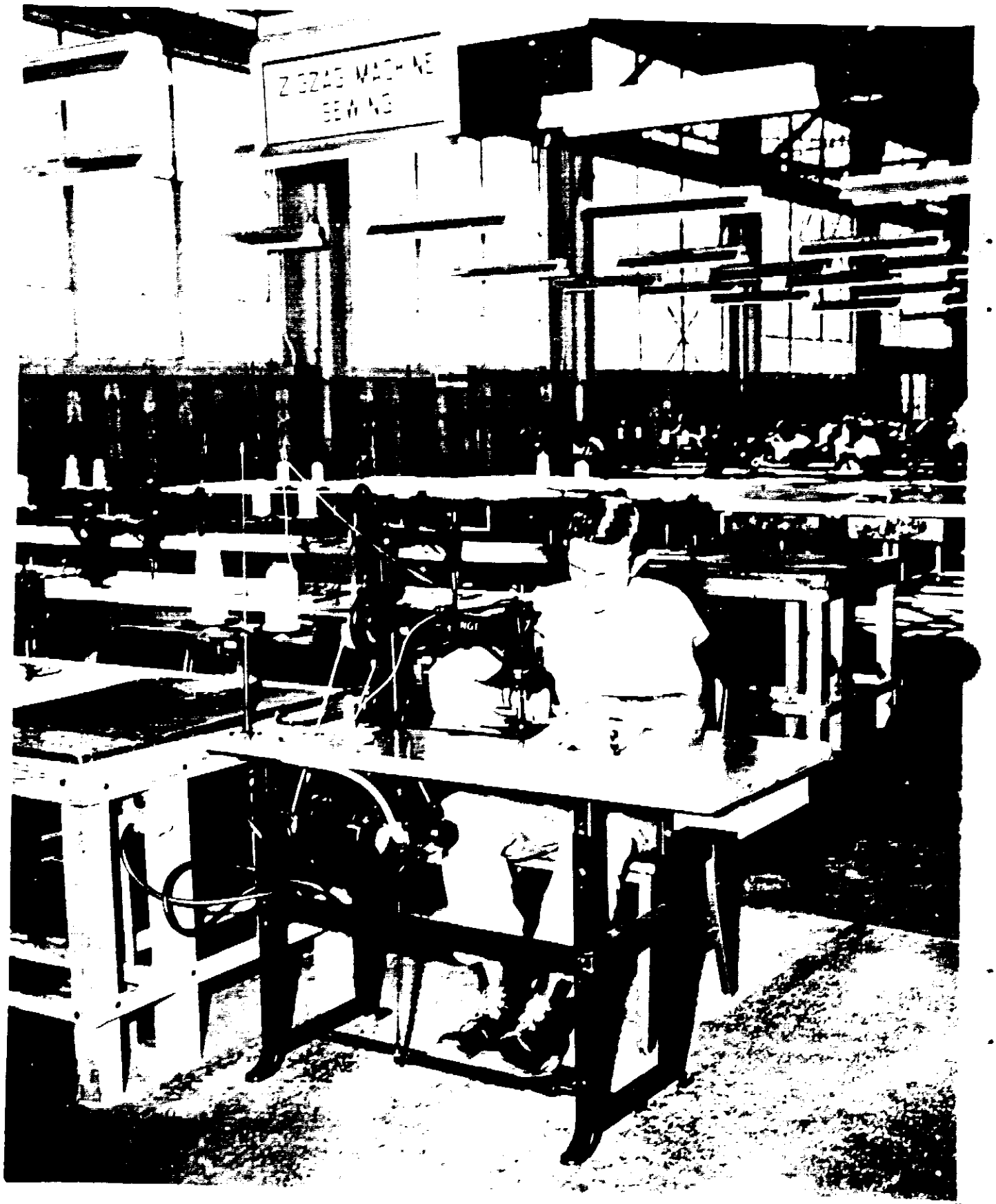


97-10 SEWING MACHINE

STUDENT MODIFYING A T-7 PARACHUTE HARNESS

131W113 4 NEEDLE SEWING MACHINE

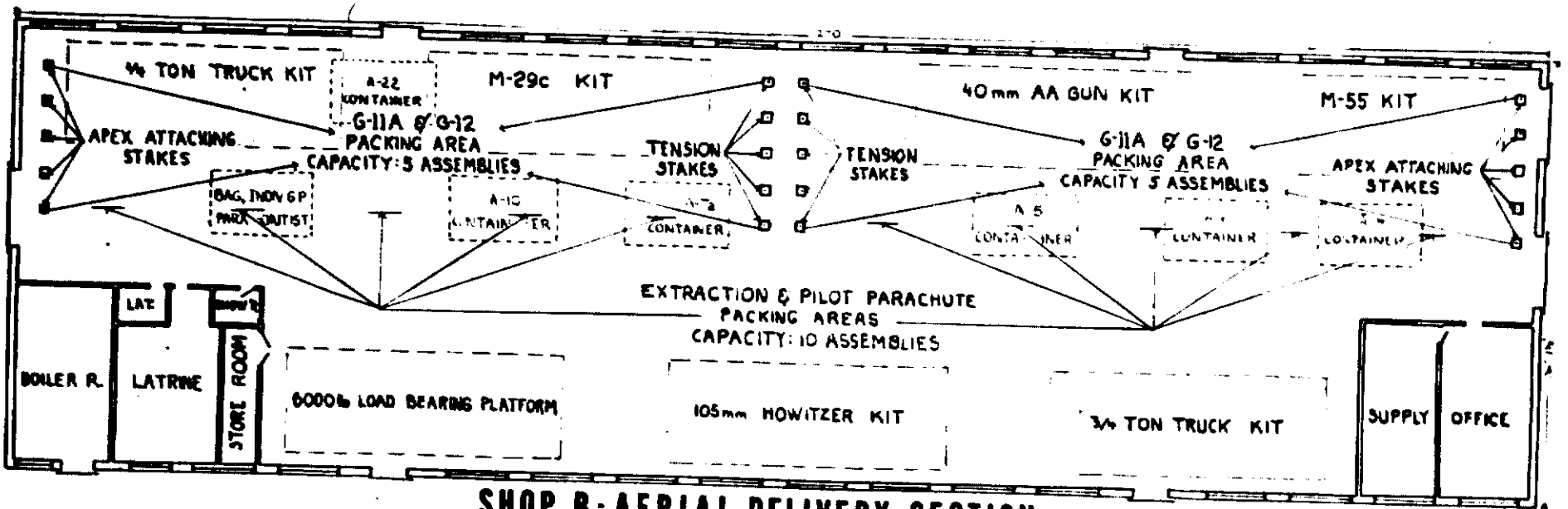
STUDENT REPAIRING A LARGE CARGO PARACHUTE, G-11




17W15 ZIG ZAG SEWING MACHINE

STUDENT MANUFACTURING A BRIDAL LOOP.

STUDENT REPAIRING A PACK TRAY FRAME WITH RAWHIDE MALLET AND A WOODEN BLOCK.




**SHOP B - AERIAL DELIVERY SECTION**

drop packing; nomenclature, assembly, disassembly, preparation for loading and ejection technique of the 2200 lb. cargo container.

c. Heavy Cargo Parachute Packing (32 hours) - The description and functioning of cargo, extraction and pilot parachutes; inspection and packing; attachment of parachutes to the aerial delivery loads; and the use of the extraction and pilot parachutes.

d. Heavy Equipment Drop Techniques (76 hours) - Familiarization with and exercises in the operational use of all standard aerial delivery kit assemblies.[7]

Several types of parachutes, containers, kits, and platforms were taught in Phase III (see fig 9). Lectures on the monorail system were given in the air transportability subjects.[8] Although the School had planned for and made provisions for teaching the assembling of aerial delivery kits for the 2 1/2 ton truck, the 90-mm gun, and the crawler-type airborne tractor, these plans did not materialize during the first eighteen months of operations. The shop B layout indicated that the M-29C Cargo Carrier kit was taught there. This was a development which occurred after August 1952.[9]

This was the program of training pursued by the students in the first PPM&AD classes. New developments in the rapidly-changing airborne

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[7] Ibid.

[8] Told to the writer by SFC Jack K. Reid, Senior Enlisted Instr., Aerial Delivery Section, Abn Gp, QMS, 18 Nov 52.

[9] Monorail system is a single rail suspended from the roof of cargo carrying aircraft to which supplies or equipment to be airdropped are suspended and balanced.

field forced minor modifications in the curriculum from time to time. Indeed, so rapidly did new developments, techniques, and items of equipment appear that it is difficult to determine the precise time when one type of parachute replaced another or when similar changes occurred. Figures 5, 7, 8, and 9 show the most important aerial delivery items included in the programs of instruction the first year and a half .

The rapidity with which these changes occurred caused the Quartermaster School one of the three most serious problems which it faced after getting started. The staff and faculty had to be constantly on the alert to catch changes and improvements as they occurred throughout the Army. Combat reports and maneuver reports were studied. One instructor, Captain Peter Burns, defined the method employed by the faculty in changing the program very well when he stated "As soon as we find out that there is a change, we incorporate it. If the depot gets a change and we are informed about it, we incorporate it immediately."[10] These changes had become so numerous by early 1952 that they required the preparation of an entirely new program of instruction.

The second difficulty which the instructors faced was the dearth of published airborne supply doctrine. This had been a serious problem in planning the course and it continued after the course began. An enlisted instructor, SFC Earl Kennedy, explained this problem as it concerned parachute packing in the following terms:

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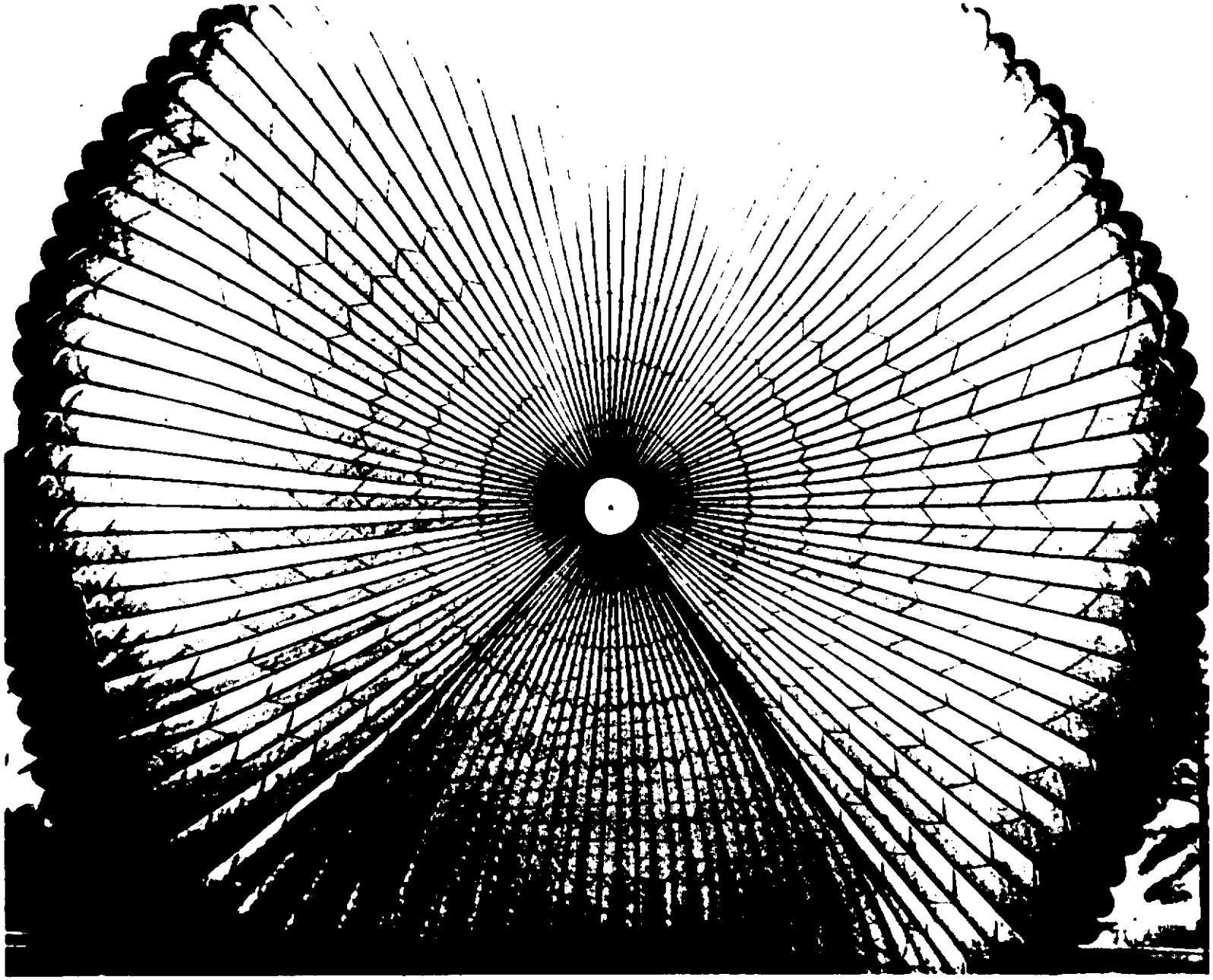
[10] Told to the writer by Capt Burns, 8 Sep 52.

FIGURE 9

THE PARACHUTES, CONTAINERS, KITS, AND PLATFORMS USED IN PHASE III (NOW PHASE II), PARACHUTE PACKING, MAINTENANCE, AND AERIAL DELIVERY COURSE, 1951-1952

| Nomenclature | Material | Size | Brief Description |
|---|---|---|---|
| Pilot Parachute | Nylon | 36" diameter | Serves to pull extraction parachute from aircraft |
| Extraction Parachute | Nylon | 16' Diameter | Ribbon type parachute used to extract cargo and cargo parachute from aircraft |
| G-12 Parachute | Nylon | 64' diameter | Cargo parachute |
| G-11 Parachute | Nylon | 100' diameter | Cargo parachute |
| Type A-22 Aerial Delivery Container | Cotton duck and webbing | 30" x 38" x 24" to 48" x 52" x 60" | Carries up to 2200 lb. load |
| Aerial Delivery Kit Assembly 11' Platform | Wood, metal and webbing | 11' long 6' 8" wide | Carries 1/4 ton truck and M55 MM gun |
| Aerial Delivery Kit Assembly 15' Platform | Wood, metal and webbing | 15' long 6' 8" wide | Carries 3/4 ton truck, 40MM gun, and 105mm howitzer, and M-29C Cargo Carrier |
| 6,000 lb. load bearing Platform | Aluminum alloy and webbing | 12' long 6' 8" wide | Carries weights up to 6,000 lbs. |



A G11 parachute inflated. The tremendous size of this cargo pa[illegible] is shown by comparison with the student in the lower left.

There are dozens of ways to pack a parachute. The idea is to set a policy that the other organizations in the Army will follow. Before, all of the units had their own peculiarities in packing...Nothing was standardized. This school is trying to standardize it throughout the whole Army so we can take a packer and send him to any unit and he can still function shoulder to shoulder with any man there. When we came here we had men from the 11th and 82d /Airborne/ Divisions and a little while later from Benning. All three places use different methods of packing. We got together and looked at each method of packing and took the better methods, put them together, and used them here.[11]

Both Lt Colonel William Pencak, who succeeded Lt Colonel Dodge as Officer in Charge, and his assistant, Major David Herber, considered the lack of published doctrine on airborne supply as a serious handicap to instruction. To alleviate this problem, the airborne instructors maintained a close liaison with the Quartermaster Technical Training Service to produce published procedural guides. However, despite these and other efforts, the problem was a long way from being completely solved by the fall of 1952.[12]

The aerial delivery exercises held at Wonju Drop Zone, Camp Pickett, Virginia caused some difficulties. The Fort Lee Transportation Officer furnished transportation for personnel and equipment to move from Fort Lee to Camp Pickett. The OIC, Airborne Group, submitted his transportation requests to the Post Transportation Officer as far in advance as possible, generally from one to two weeks in advance of the date of use.

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[11] Told to the writer by SFC Kennedy, 17 Sep 52.

[12] Told to the writer by Lt Col William O. Pencak, OIC, Abn Gp, QMS, and Maj David Herber, Asst OIC, Abn Gp, QMS, 27 Aug 52.

STUDENTS PACKING THE LARGE G[illegible]GO PARACHUTE AS REQUIRED IN THE PP, M&AD COURSE.

Initially, transportation was furnished as requested; however, by the summer of 1952, vehicles occasionally arrived late. As the schedule was tight, especially when a heavy equipment drop was to be conducted, a delay in getting started from Fort Lee was not only annoying but serious.[13] This difficulty was solved by closer coordination between the Quartermaster School and the Post Transportation Officer and the establishment of priorities for airborne activities in the summer months when Fort Lee was busy with ROTC, ORC, and other seasonal training.

These were not the only problems posed by the aerial delivery exercises. Although the prerequisites for the course required all students to be qualified parachutists, some students in the first classes arrived at the Quartermaster School who were not qualified. They were returned to their home stations and the Chief, Army Field Forces directed that each student assigned to the course certify that he was "qualified as parachutist."[14] Also of concern to the School faculty were other students, who, although qualified as parachutists, were without recent jump practice. This problem was solved by conducting refresher training in parachute jumping. This course was to consist of physical conditioning, three hours of parachute landing fall techniques and exercises, two hours of mock-door training, seven hours of suspended harness training, and

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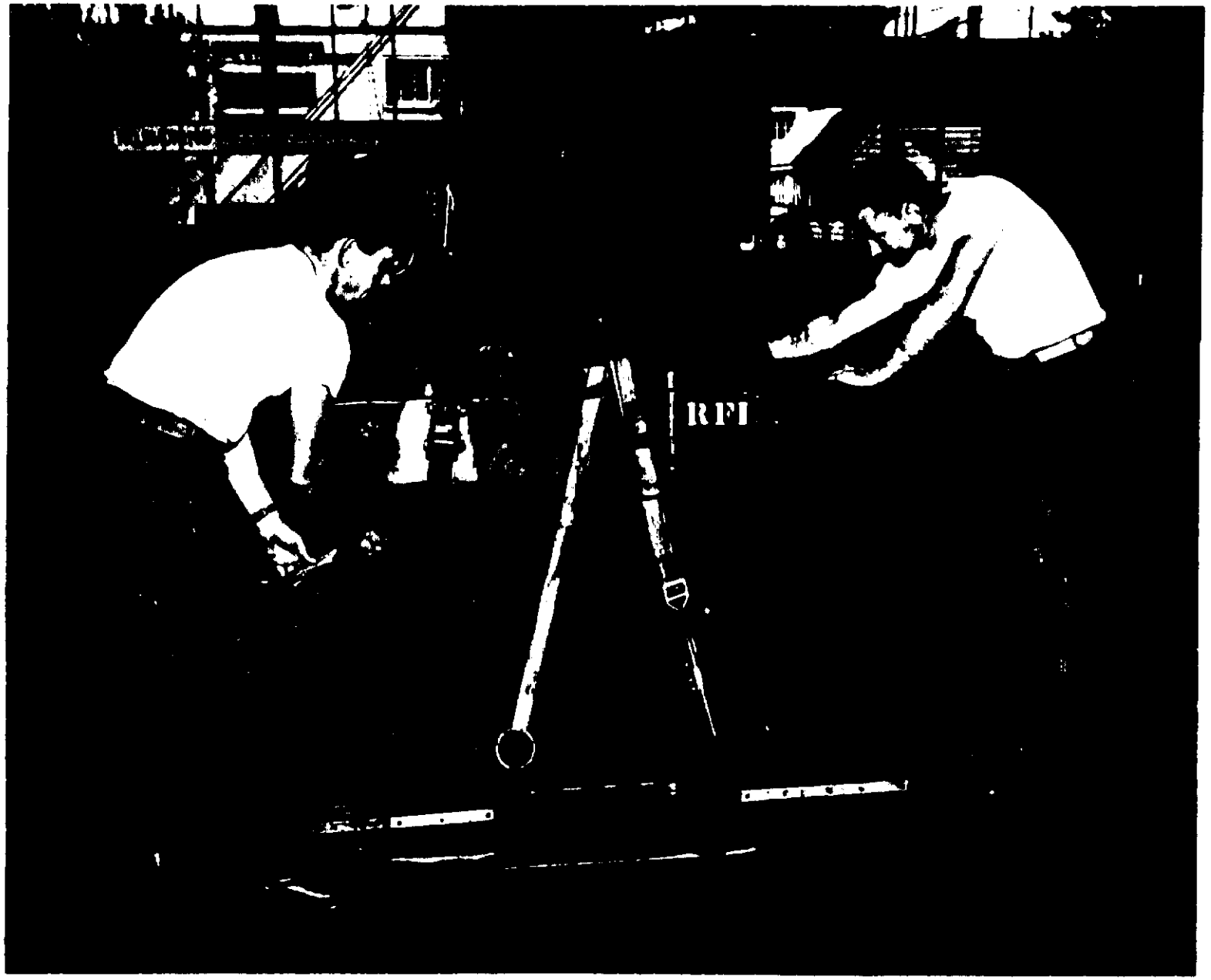
[13] DFs, OIC, Abn Gp, to Dir of Tng, QMS, 16 Jul, 19 Aug, and 29 Sep '52, sub: Tardiness of Vehicles for Aerial Delivery Exercises.

[14] OCAFF ltr to Chiefs of NG Bureau, Technical and Administration Services, and CGs of Mil District of Wash, First, Second, Third, Fourth, Fifth and Sixth Armies, 22 Aug 51, sub: Prerequisites for Parachute Packing and Maintenance and Aerial Delivery Courses.




STUDENTS PREPARING A ¾ TON TRUCK FOR AERIAL DELIVERY.

STUDENTS RIGGING THE 6000 POUND LOAD BEARING KIT FOR DROPPING BY PARACHUTE

STUDENTS PLACING SHOCK PADS UNDER THE AXLE OF A 40 MM GUN IN PREPARATION FOR AERIAL

D

one hour of tower jump training.[15] In addition greater flexibility appeared to be in order for the dates of the aerial delivery exercise and the parachute jump.[16]

The parachute jump was planned for Tuesday of the fourth week and the equipment drop for Thursday of the twelfth week. School officials felt that if these were moved forward to an earlier time in the schedule, provision could be made for unforeseen difficulties such as bad weather or delay in aircraft. Lt Colonel Dodge disagreed with this need for rescheduling. He reasoned that in a few weeks the schedule would be operating efficiently since the fourth week of Class No. 3 would coincide with the twelfth week of Class No. 1 and that aircraft could be used for both classes in the same week.[17] As a result of this proposal, the jump and aerial delivery exercises were left as scheduled. All worked fairly well for the first seven classes despite an increase of the interval from four to seven weeks between the opening dates of Class No. 4 and Class No. 5. The time differential between these two classes was the exception and necessitated an additional call for aircraft. After Class No. 8 which started six weeks after Class No. 7, subsequent classes began five weeks apart instead of four.[18]

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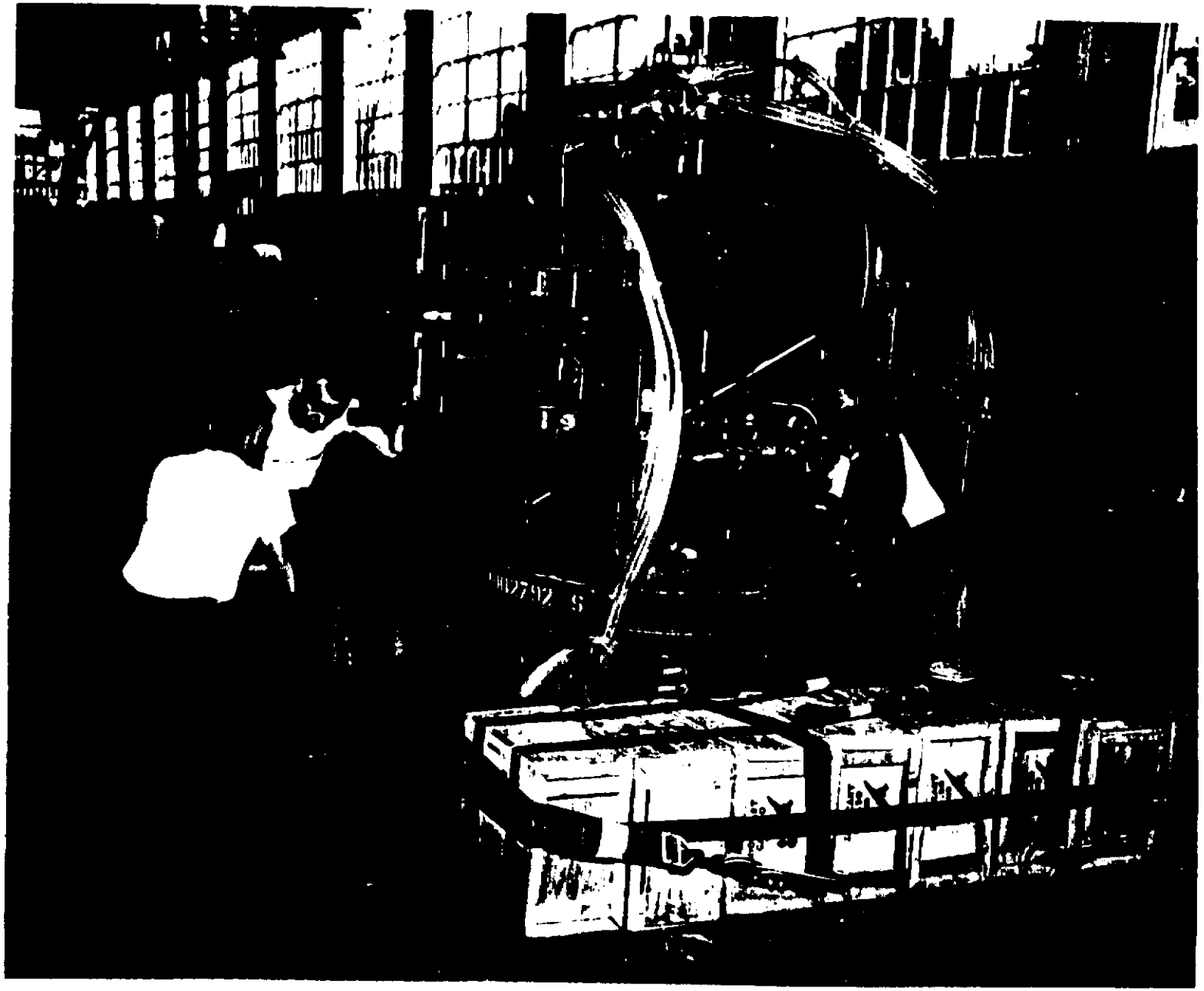
[15] DF, Asst Comdt, QMS, to CO, Abn Bn, Fort Lee, Va., 20 Aug 51, sub: Airborne Refresher Training.

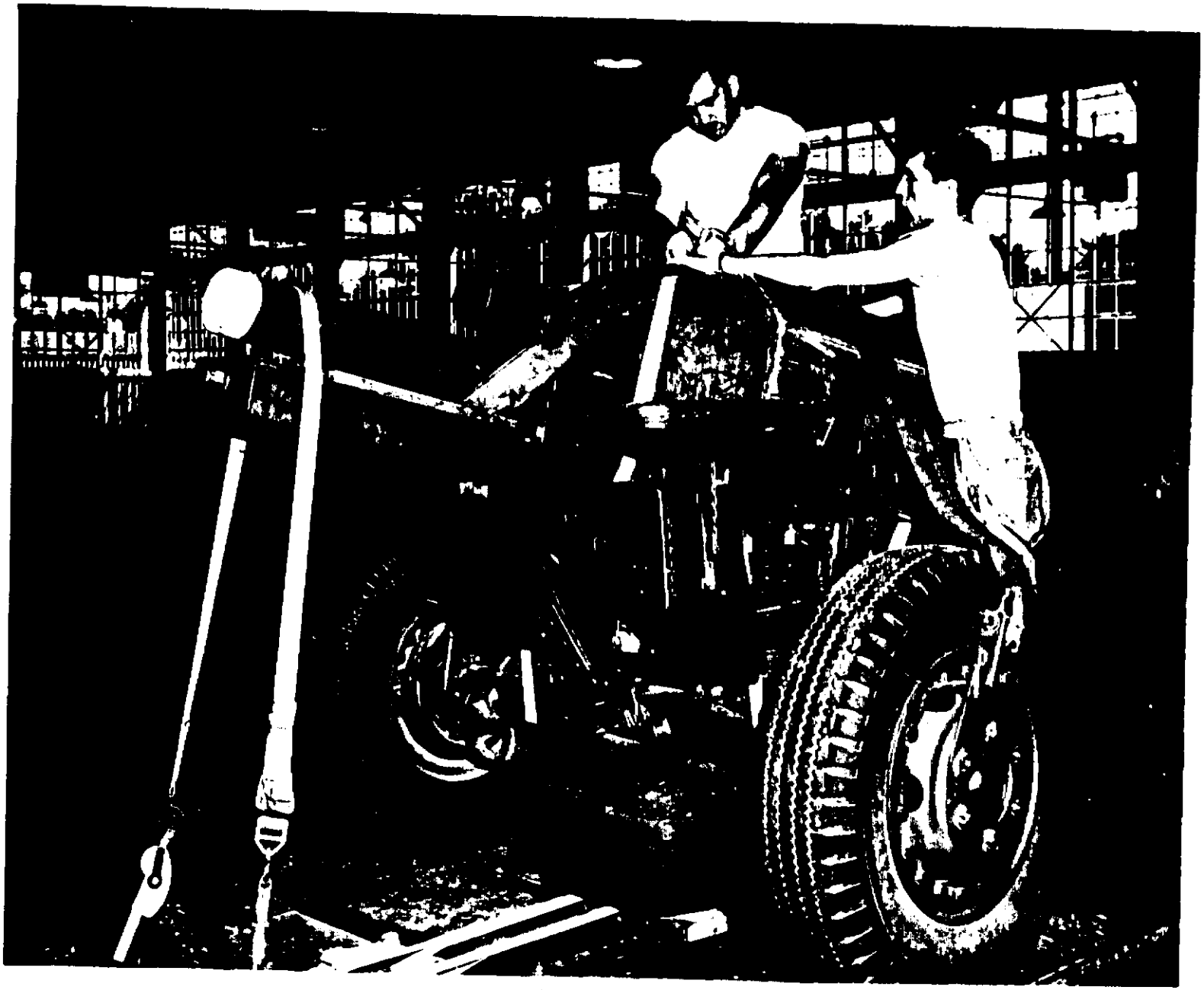
[16] DF, Dir of Tng to OIC, Abn Sup Gp, QMS, 13 Jun 51, no sub.

[17] Comment No. 2, OIC, Abn Sup Gp, to Dir of Tng, QMS, 18 Jun 51, no sub to DF, 13 Jun 51.

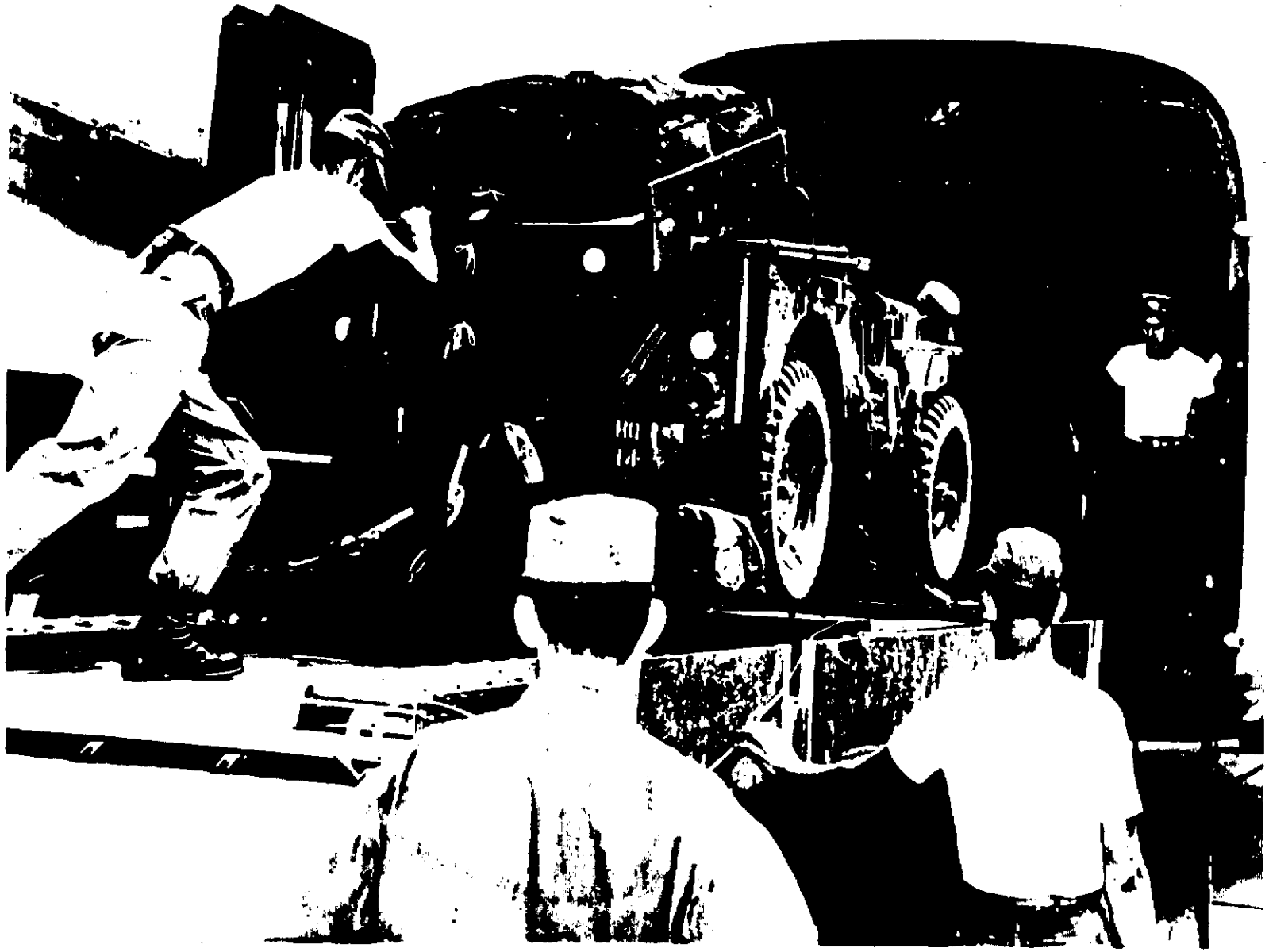
[18] See figure 12 for class openings and graduations.



STUDENTS RIGGING A M-55 MULTIPLE MOUNT MACHINE GUN FOR AERIAL DELIVERY.



STUDENTS RIGGING A 105 MM HOWITZER FOR AERIAL DELIVERY



Loading a ¼ ton truck in a C119 aircraft preparatory to drop.

This meant that the effectiveness of the fourth week jump and the twelfth week drop was destroyed insofar as requisitioning aircraft to perform both missions was concerned. Two requisitions were necessary after the start of 1952 where previously only one had been needed. In September 1952, in order to reduce the expense of using aircraft, the parachute jump and aerial delivery exercise were held on the same day. In order to accomplish this and at the same time to allow for the five-week difference between classes, the student parachute jump was moved to Wednesday of the third week of training and the aerial delivery exercise to Wednesday of the eighth week. This shift was made possible by the revised program of instruction.

Under the new plan a class participated in the parachute jump while on the same day the class ahead of it accomplished the aerial delivery of supplies. The new combined exercise plan was put into effect on 24 September 1952 for classes 53-1 and 53-2.[19] This arrangement reduced both transportation and aircraft requirements and gave students in Phase I an opportunity to observe aerial delivery operations.[20]

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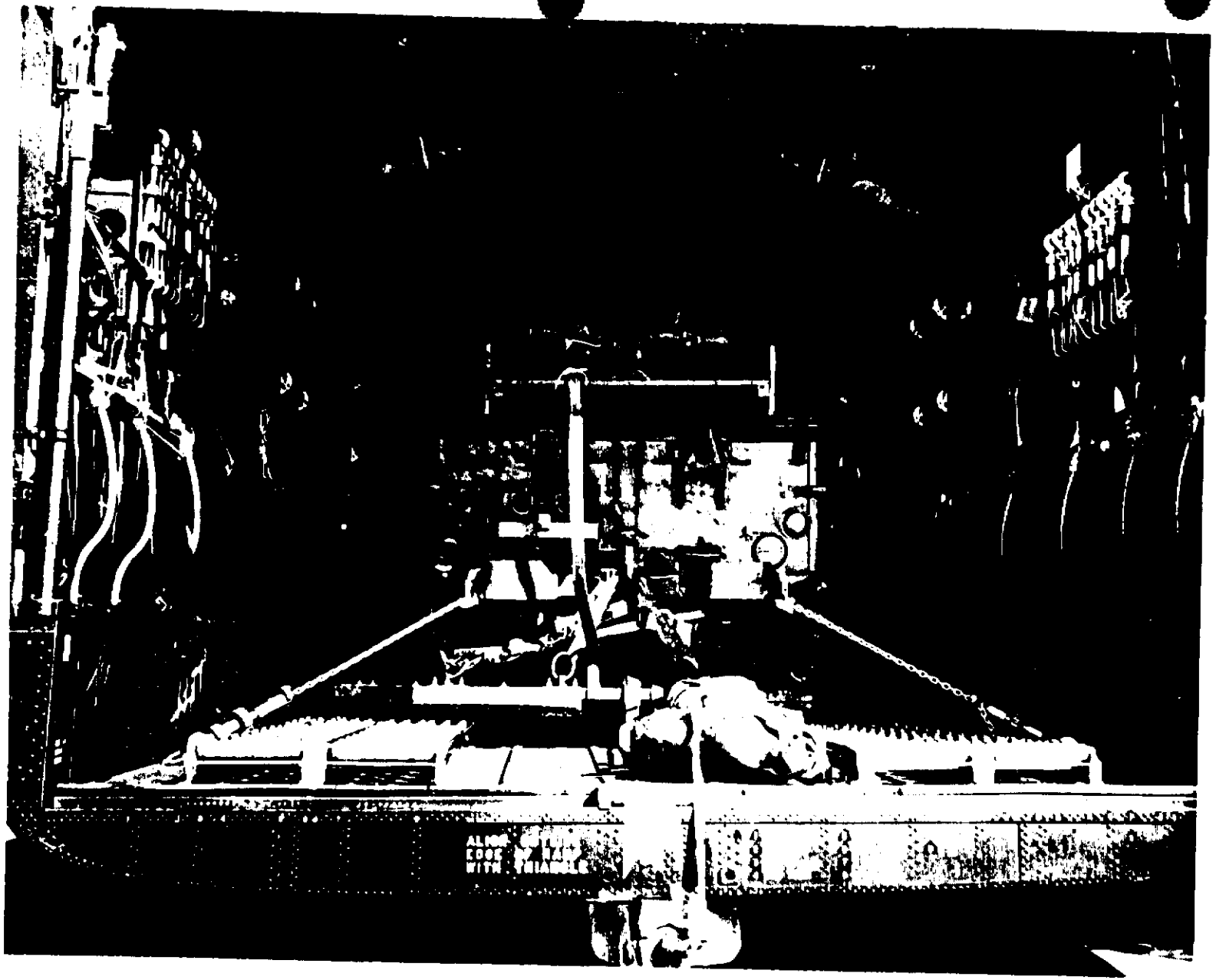
[19] A schedule of parachute jumps and aerial delivery exercises for the PPM&AD Course is shown in Figure 10.

[20] Told to the writer by SFC Kennedy, 20 Nov 52, Capt Grosseto, 28 Aug 52, and Capt Cecil Hospelhorn, Chief Instr, Aerial Delivery Sec, Abn Gp, QMS, 15 Sep 52.

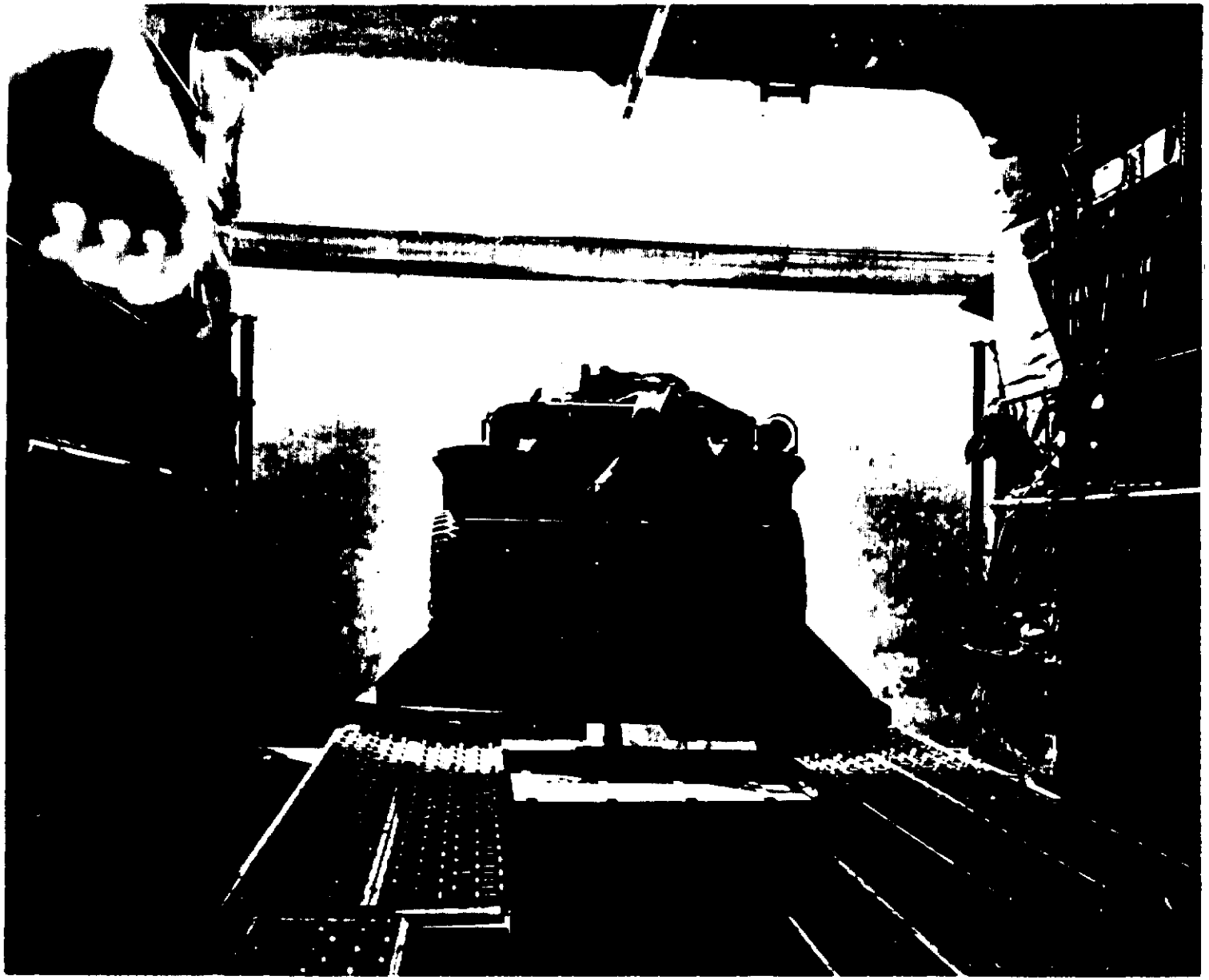
FIGURE 10

PARACHUTE JUMPS AND AERIAL DELIVERY DROPS FOR FIRST 18 MONTHS OF OPERATION OF THE AIRBORNE GROUP, QUARTERMASTER SCHOOL

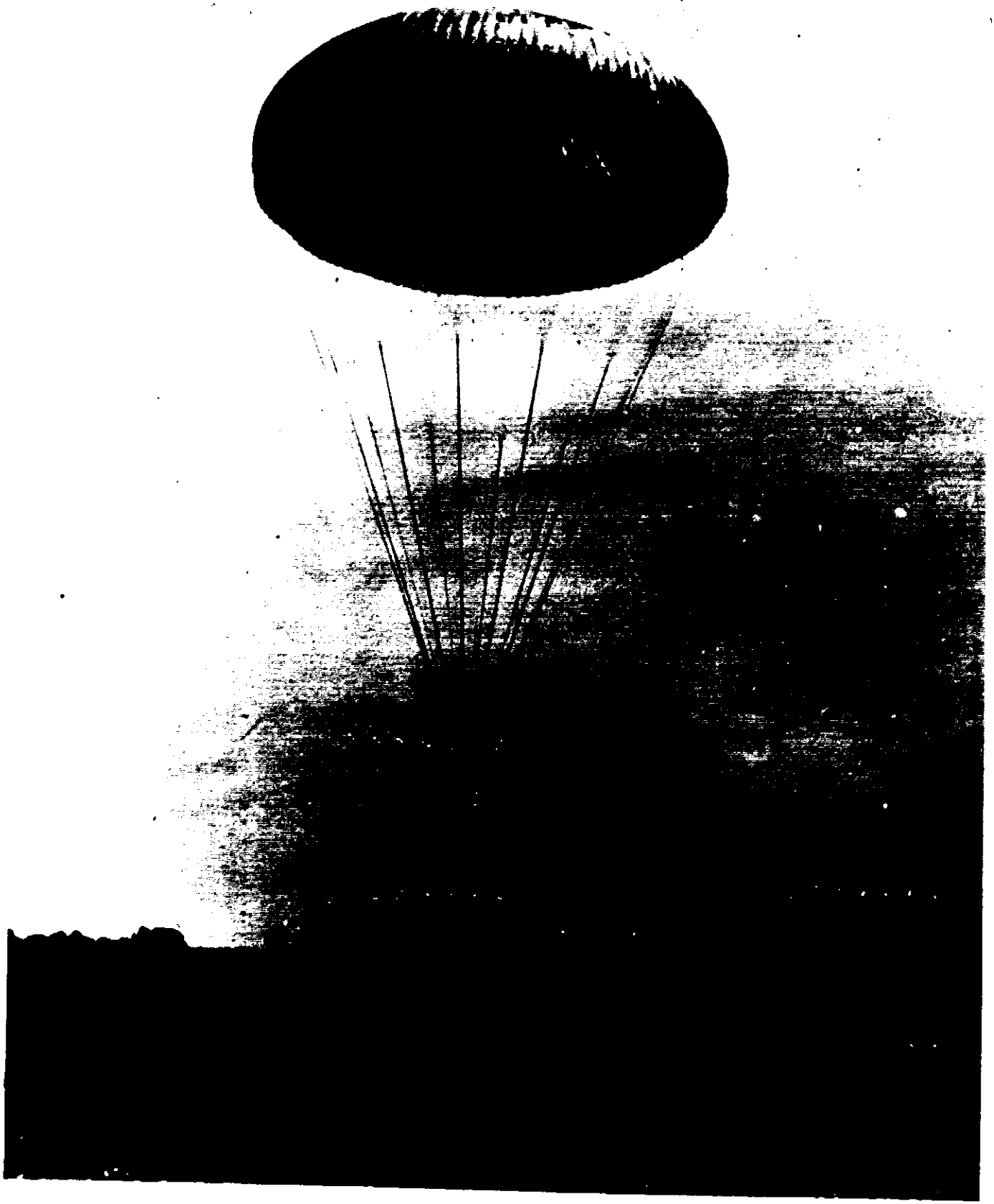
| Class No. | Parachute Jump | Aerial Delivery Drop |
|---|---|---|
| 1 | 9 August 1951 | 10 August 1951 |
| 2 | 10 July 1951 | 7 September 1951 |
| 3 | 7 August 1951 | 4 October 1951 |
| 4 | 4 September 1951 | 1 November 1951 |
| 5 | 23 October 1951 | NO DROP |
| 6 | 20 November 1951 | 31 January 1952 |
| 7 | 31 January 1952 | 31 January 1952 |
| 8 | 29 January 1952 | 25 February 1952 |
| 9 | 31 March 1952 | 31 March 1952 |
| 10 | 8 April 1952 | 5 May 1952 |
| 11 | 13 May 1952 | 10 June 1952 |
| 12 | 17 June 1952 | 14 July 1952 |
| 13 | 22 July 1952 | 18 August 1952 |
| 53-1 | 26 August 1952 | 24 September 1952 |
| 53-2 | 24 September 1952 | 30 October 1952 |
| 53-3 | 30 October 1952 | |




A ¼ TON TRUCK COMPLETELY RIGGED AND LASHED IN A C-119 AIRCRAFT.



A ¼ TON TRUCK BEING EJECTED FROM A C-119 AIRCRAFT OVER WONJU DROP ZONE, CAMP PICKETT, VA. AS PART OF THE PARACHUTE PACKING, MAINT AND AERIAL DELIVERY COURSE.



A ¼ ton truck about to land at Wonju Drop Zone, Camp Pickett, Va.

By the fall of 1951, it was apparent to the School faculty that the aerial delivery exercise came too close to the end of the course. The first two classes had barely gotten their aerial delivery exercise in the day before graduation. Classes No. 3 and 4 had conducted their drops as scheduled two days before graduation, but Class No. 5 had been forced to complete the course without the exercise due to inclement weather. It was too easy for unsatisfactory climatic conditions to cause cancellation of the drop and winter weather would increase the probability of delay. School authorities reasoned that the exercise could be presented better if Phase III were interchanged with Phase II.[21] The Commandant approved and Class No. 7 which was in progress was the first to train under the revised schedule.[22] From that time on, Phase II consisted of aerial delivery training and Phase III was the maintenance training.[23]

Curiously enough, the February 1962 POI did not reflect the change in phases. The February Program had been prepared before rephasing was accomplished but more important, Chief, Army Field Forces, had not given final approval to the rephasing.[24]

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21 DF, Asst OIC, Abn Gp, to Asst Comdt, QMS, 28 Dec 51, sub: PPM&AD Rephasing.

22 Written authorization for this rephasing has not been found, but proof that it was granted is shown in a QMS ltr to TQMG thru CG, Fort Lee, Va., 4 Jan 52, sub: Change in FY 1952 Class Schedule for Course No. 10-OE-30a. This ltr requested a revision in class starting dates in Aerial Delivery because of the change in phasing made in the PPM&AD Course.

23 Told to the writer by Capt Hospelhorn, 20 Nov 52.

24 3rd Ind from OCAFF to QMG, 13 Feb 52, to QMS ltr to TQMG thru CG, Fort Lee, Va., 4 Jan 52, sub: Change in FY 1952 Class Schedule for Course Number 10-OE-30a.

STUDENTS PERFORMING RECOVERY OPERATIONS ON A ¼ TON TRUCK WHICH HAS JUST BEEN DROPPED AT WONJU DROP ZONE. CAMP PICKETT, VA.

Students of the Airborne Group unrigging a ¼ ton truck which had just landed at Wonju Drop Zone. An officer instructor (kneeling in front of truck) checks for damage

## The Major Revision of the Parachute Packing, Maintenance, and Aerial Delivery Course

As a result of a conference held at the OQMG on 15 January 1952, The Quartermaster General directed that the Parachute Packing, Maintenance and Aerial Delivery Course be revised. He directed that the sequence of phases in the new course was to be parachute packing, aerial delivery, and maintenance. All parachutes were to be packed during the parachute packing phase and instruction restricted to standardized aerial delivery nets and containers. The aerial delivery phase should be expanded to include training in the monorail and other systems used in Air Force aircraft. Finally, the aerial delivery phase was to be integrated with the newly established Aerial Delivery Course.[25]

By March 25, the Airborne Group faculty had submitted a revised program of instruction. One other important change was made in the program. The faculty removed warrant officers from the list of those eligible to attend the course on the grounds that the parachute maintenance field had not been included in the warrant officer career management program. With this change and others of minor importance, the revised program was forwarded to The Quartermaster General on 11 April 1952.[26] Before it was sent from Washington to Chief, Army Field Forces, for final approval, The Quartermaster General added warrant officers to the list

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[25] Ltr, OQMG to CG, Fort Lee, Va., ATTN: The QMS, 18 Jan 52, sub: Revision of the Program of Instruction for the Parachute Packing, Maintenance and Aerial Delivery Course.

[26] Ltr, QMS to TQMG, Washington, D. C. thru CG, Fort Lee, Va., 11 Apr 52, sub: Revised Program of Instruction, Parachute Packing, Maintenance and Aerial Delivery, Army School Catalog Number 10-OE-30.

of eligibles to attend the course.[27]

On 1 July Army Field Forces approved the revision,[28] and two weeks later the news was received at the Quartermaster School headquarters.[29] The way was then cleared for the publication and distribution of the revised program of instruction which appeared under the date of August 1952. Class 53-1 which began on 4 August 1952 was the first class to begin training the new POI.[30]

Several important changes were apparent in the August 1952 program of instruction. The prerequisites for admission and the length of course remained the same as in previous editions of the program. The purpose of the course was reworded although retaining the same meaning. Mention was added of the officer MOS (Parachute Maintenance Officer - 4820) in which training was given. This had not been done in the May 1951 and February 1952 programs. The major changes, however, were in the organization and breakdown of the subject matter. The shift made between the maintenance and aerial delivery phases remained in effect. The list of major subject headings and hours devoted to each which follows shows significant changes when compared to the POI appearing on pages 47-48.

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27 Telecon between Capt Waller, OQMG, and Lt Col McKillips, Curriculum Br, QMS, 1 May 52, noted in DF, Lt Col McKillips, to Sch Sec, QMS, 2 May 52, no sub.

28 1st Ind, OCAFF to TQMG, 1 Jul 52, to OQMG Ltr to OCAFF, 28 May 52.

29 3rd Ind, Hq, Fort Lee, to Comdt, QMS, 12 Jul 52, to OQMG Ltr to OCAFF, 28 May 52.

30 Info on Class No. 53-1 supplied by SFC Franklin M. Calhoun, Enl Instr, Parachute Packing Sec, Abn Gp, QMS, 21 Nov 52.

PARACHUTE PACKING, MAINTENANCE, AND AERIAL DELIVERY COURSE
(12 weeks, 528 hours)

| Subject | Hours |
|---|---|
| Parachute Packing | 157 |
| Troop Type Parachute Packing | (75) |
| Free Type Parachute Packing | (19) |
| Aerial Delivery Parachute Packing | (13) |
| Organizational Parachute Packing | ( 7) |
| Student Parachute Jump | ( 8) |
| Heavy Cargo Parachute Packing | (35) |
| Aerial Delivery | 115 |
| Basic Aerial Delivery Subjects | (16) |
| Aerial Delivery Container Rigging | (10) |
| Special Aerial Delivery Techniques | (13) |
| Aerial Delivery Kit Rigging | (60) |
| Aerial Delivery Operations | (16) |
| QM-Airborne Equipment Maintenance | 148 |
| Sewing Machine Operation | (39) |
| Construction of Equipment and Organizational Maintenance | (35) |
| Organizational and Field Maintenance | (36) |
| Field and Depot Maintenance | (38) |
| Miscellaneous | 108 |
| Cost Consciousness | ( 1) |
| Physical Conditioning | (59) |
| Troop Information | (12) |
| Reserved for Quartermaster School Commandant | (12) |
| Reserved for Unit (Administrative) Commander | (24) |

Phase I, now called Parachute Packing and increased from 120 to 157 hours in length continued to be conducted in Shop G. It consisted of six major subjects:

a. Troop Type Parachute Packing (75 hours) - Introduction to parachutes. Description, construction, packing procedure, and adjustment of the troop type parachute.

b. Free Type Parachute Packing (19 hours) - Familiarization in the description, construction, packing procedure, and adjustment of free type parachutes.

c. Aerial Delivery Parachute Packing (13 hours) - Familiarization in the description, construction and packing procedures of aerial delivery parachutes.

d. Organizational Parachute Packing (7 hours) - Team packing techniques.

e. Student Parachute Jump (8 hours) - Airborne exercise using student packed parachutes.

f. Heavy Cargo Parachute Packing (35 hours) - The description, functioning, and use of cargo, extraction and pilot parachutes; inspection and packing; and attachment of parachutes to aerial delivery loads.[31]

Training in various types of aerial delivery containers was no longer included in Phase II but the packing of heavy cargo parachutes such as the G-11, G-11a (a modified version of the G-11), and G-12 was now taught. Also, instruction in pilot and extraction chutes was given.

Phase II, Aerial Delivery, remained in Shop B. Students took five subjects:

a. Basic Aerial Delivery Subjects (16 hours) - Introduction to and familiarization with cargo aircraft; flight rules and safety precautions; basic computation of loads, ropes and knots; theory of lashing; special tie-down devices; loading and lashing equipment.

b. Aerial Delivery Container Rigging (10 hours) - Familiarization in the description, use, and rigging of assault containers.

c. Special Aerial Delivery Techniques (13 hours) - Current possibilities and future trends in free drop techniques; packing for

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[31] POI, PPM&AD Course, Aug 52.

free drops; and the nomenclature, assembly, disassembly, preparation for loading and ejection techniques by monorail and the A-22 (2200 lb) cargo container.

d. Aerial Delivery Kit Rigging (60 hours) - Nomenclature, equipment placement, suspension system uses, padding installation, lashing, parachutes, release assemblies, and the rigging of currently standardized aerial delivery kits.

e. Aerial Delivery Operations (16 hours) - Mock-up aircraft loading for aerial delivery. Equipment recovery and rehabilitation methods. Loading and rigging monorail and standardized aerial delivery kits loads in aircraft. Cargo ejection from aircraft in flight and drop zone recovery techniques.[32]

A reduction in hours from 140 to 115 had been made in this phase. It swapped cargo parachute packing for aerial delivery containers with Phase I and provision was made for teaching these containers in Shop B. Air transportability subjects continued to be taught although they were now called "Aerial Delivery Subjects." Instruction on the M-29C Cargo Carrier Kit was begun. Plans called for instruction in the 76-mm gun kit, the 57-mm anti-tank gun kit, and the 1-ton trailer kit, but had not been begun by November of the same year.[33]

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[32] Ibid.

[33] Info supplied by Capt Hospelhorn, 21 Nov 52.

Phase III, QM-Airborne Equipment Maintenance, Shop H, comprised five subjects:

a. Basic Sewing Machine Operation (39 hours) - The Department of Army Maintenance system; types of sewing machines and general techniques; control and production methods; exercises in the insertion of material; removal of material and the application of machine sewn seams and stitching. Binding seams; superimposed seams; lap seams; ornamental and edge finishing stitchings materials and hand tools.

b. Organizational Maintenance (35 hours) - The construction of parachutes and equipment containers; hand stitching and darning. Maintenance of rip cords; construction of bridle loops and cords. Cutting canopy patch patterns and preparing canopy for patching. Channel patching. Construction and replacement of pack tray keepers. Pack tray repairs and the replacement of rip cord housings. Classification and maintenance inspections.

c. Field Maintenance (36 hours) - Straightening parachute pack frames; installation of fasteners and grommets; and maintenance of the release box assembly. Sewing patches to the canopy and repairing aerial delivery containers. Constructing and replacing the back pack belt; replacing the pack tray wire frame, suspension line and static line retaining band attaching webs; static line and break cord attaching loops. Modification procedures.

d. Depot Maintenance (38 hours) - Techniques of and exercises in the replacement of parachute suspension lines and canopy panels;

repair of large cargo canopies and containers; and pack cover construction. Accomplishment of currently directed modifications to Quartermaster air type equipment. Student project.[34]

There were less changes in this phase than in any other. Total hours had been reduced slightly from 160 to 148. Most important development was the reorganization of the phase into a more logical teaching sequence than had been used previously. After basic instruction in sewing maching operation, maintenance was taught according to the levels, or echelons, which the students would be likely to encounter after leaving Fort Lee: organizational level, field level, and depot level.

Interspersed throughout these phases were 108 hours of miscellaneous subjects which remained the same as in the previous programs except for the substitution of one hour of cost consciousness training for one of the 60 hours of physical training.

By September 1952, the Parachute Packing, Maintenance, and Aerial Delivery Course POI had been stabilized. It would continue throughout the Korean War to the end of 1953 without significant changes or reorganization of subject matter. The initial POIs produced by the trial and error method had been supplanted by a POI flexible enough to meet changing conditions and at the same time sufficiently standardized to produce a constant flow of qualified personnel for duty in Army units.

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[34] POI, PPM&AD Course, Aug 52.

## The Aerial Delivery Course

In the planning stage of the airborne training program many officials, both in Washington and Fort Lee, felt that there was a need for a separate course of instruction devoted exclusively to aerial delivery techniques. They believed that trained packers and riggers required school training in these phases of Quartermaster work only. The announcement of the new MOS 4620, Parachute Packer and Repairman in November 1950, demanded training in aerial delivery whereas previously the MOS had not.[35] It would be both expensive and time consuming to send persons already trained as packers and maintenance men through the twelve-week course just to receive the 115 hours of aerial delivery instruction.

On 21 May 1951, the very day that the opening exercises were being held in Shop G, The Quartermaster General requested the Quartermaster School to prepare a brief course of instruction in Aerial Delivery in time to be announced before 11 July 1951. He further directed that the Aerial Delivery Course was to be closely allied to its big brother, the Parachute Packing, Maintenance, and Aerial Delivery Course in that it was to be identical to Phase III of the latter, the opening and closing dates were to coincide with Phase III and there were to be twelve classes a year. The date selected was 11 July because Class No. 1 would begin aerial delivery training on 16 July and this would allow time for the students to report to Fort Lee and be assigned quarters. The capacity

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[35] See Chapter III.

of the proposed course, however, was set at 20, only one-fifth that in the Parachute Packing, Maintenance, and Aerial Delivery Course.[36]

After receiving the POI proposed by the Quartermaster School, The Quartermaster General requested it be approved by Army Field Forces. Specifically, he requested that:

a. An Aerial Delivery Course be held at the Quartermaster School consisting of 4 weeks of work (176 hours).

b. The scope of the course was to be the same as that taught in Phase III of the Parachute Packing, Maintenance and Aerial Delivery Course.

c. Prerequisites for the admission of officers, warrant officers, and enlisted men were to be the same as those in the Parachute Packing, Maintenance, and Aerial Delivery Course except that enlisted personnel should be grades E-3 (Pfc) or E-2 (Private).

d. There were to be twelve classes per year, each with a 20-man capacity.[37]

The necessary approval was not granted by Army Field Forces until 10 August which, it is interesting to note, was well after Aerial Delivery Class No. 1 had started without waiting for the written sanction.

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[36] Ltr, TQMG, to CG, Fort Lee, Va., ATTN: QMS, 21 May 51, sub: Proposal to Establish a Course of Instruction in Aerial Delivery.

[37] Ltr, OQMG, to OCAFF, Fort Monroe, Va., 27 Jun 51, sub: Request for Approval to Establish a School Course.

As a matter of fact, the members of this first class graduated on 11 August.[38] The final approval by Army Field Forces was in complete harmony with the request as received from The Quartermaster General except that enlisted men of any rank could attend.

After it was set up, the four-week course had rough going for some time. Although Aerial Delivery Class No. 1 more than met the quota of 20 with 31 enrolled, a lack of students caused cancellation of Class No. 2. Classes No. 3, 4, 5, and 6 combined had only 10 report for duty. This was an average of 2.5 per class. Class figures jumped again when Class No. 7 began training with 31 enrolled.

A short time after Class No. 7 reported on 26 November 1951, the failure of classes to reach their quotas had such a disheartening effect on the faculty of the Quartermaster School that the Commandant requested permission to discontinue the Aerial Delivery Course.[39]

The Quartermaster General turned down the requests on the grounds that a revision of the course, then under way, would probably result in increased participation.[40] Yet, with the exception of Class No. 8 which

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[38] 1st Ind, OCAFF to TQMG, 10 Aug 51, sub: Request for Approval to Establish a School Course of Instruction in Aerial Delivery, to OQMG Ltr to OCAFF, 27 Jun 51. Data on AD Class No. 1 supplied by Mr. Houchins, Student Accounting Br, QMS.

[39] 8th Ind, QMS to OQMG, thru CG, Fort Lee, Va., 5 Mar 52, to OQMG Ltr to OCAFF, 27 Jun 51. Data on class dates and figures from Mr. Houchins, Student Accounting Br., QMS. Obviously, .08% means 8% and not eight-one hundredths of one percent.

[40] 10th Ind, OQMG to CG, Fort Lee, Va., ATTN: QMS, 3 Apr 52, to OQMG Ltr to OCAFF 27 Jun 51.

met its quota, this probability was not borne out in the remainder of the fiscal year. Classes No. 9, 10, and 11 had a total of 12 students, an average of 4 per class; and Class No. 12 was cancelled. Attendance at the first 12 classes was definitely disappointing.

When the Aerial Delivery Courses were begun, Class No. 1 took its work with Parachute Packing, Maintenance, and Aerial Delivery Class No. 1. The numbers continued to correspond through the first five excepting, of course, Aerial Delivery Class No. 2 which was cancelled. But when rephasing was begun with Parachute Packing, Maintenance, and Aerial Delivery Class No. 7,[41] the class numbers no longer corresponded. Thus, Aerial Delivery Class No. 6 trained with Parachute Packing, Maintenance, and Aerial Delivery Class No. 7 (and Parachute Packing, Maintenance, and Aerial Delivery Class No. 6); Aerial Delivery Class No. 7 with Parachute Packing, Maintenance, and Aerial Delivery Class No. 8; and so on. Aerial Delivery Class No. 12, scheduled for the summer of 1952, was cancelled; and when Class No. 53-13 started on 28 July 1952, it trained with Parachute Packing, Maintenance, and Aerial Delivery Class No. 13. Numbers again corresponded but for how long no one could say, because it was possible that an aerial delivery class would be cancelled at any time.

On more than one occasion, revision of the Aerial Delivery Course was suggested by both the Quartermaster School and The Quartermaster General's Office. But a revised program of instruction did not appear

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[41] See figures 12 and 13.

until September 1952. One early suggestion was made by the Quartermaster School on 13 September 1951 which recommended that the training period be cut to three weeks (111 hours).[42] This reduction was to be accomplished by eliminating 32 hours of heavy cargo parachute packing from the schedule. Nothing came of this proposal and the only direct reply to it came four months later when Personnel and Training Division of OQMG informed the School that the Aerial Delivery Course was to be revised so as to "insure complete integration" with the Parachute Packing, Maintenance, and Aerial Delivery Course.[43] Integration of the Aerial Delivery Program with the longer course was accomplished during the rephasing stage as instructed. As has been noted previously, the Quartermaster School in March 1952 asked that the Aerial Delivery Course be discontinued. Later, the School Commandant recommended that the Aerial Delivery Course be reduced to two weeks (96 hours) through elimination of basic aerial delivery subjects, aerial delivery container rigging, and special aerial delivery techniques from the schedule. This would leave only instruction in aerial delivery kit rigging, aerial delivery operations, and certain miscellaneous subjects to be taught. The

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[42] 4th Ind QMS to OQMG, thru CG, Fort Lee, Va., 13 Sep 51, to OQMG Ltr to OCAFF, 27 Jun 51.

[43] 6th Ind, OQMG to CG, Fort Lee, Va., ATTN: QMS, 18 Jan 52, to OQMG Ltr to OCAFF, 27 Jun 51.

Quartermaster General had this letter hand-carried back to the School without action.[44]

The faculty began to prepare a plan which would be more acceptable to The Quartermaster General. The new plan was developed along with the new program of instruction then being prepared for the Parachute Packing, Maintenance, and Aerial Delivery Course. The Aerial Delivery program called for a course of slightly more than three weeks (23 days) with 142 hours of training. As before, the course was planned so that common instruction in the aerial delivery phase of the Parachute Packing, Maintenance, and Aerial Delivery Course could be given in the Aerial Delivery Course.[45] This revision was passed to Army Field Forces by the OQMG nine days later and final approval for the new program was granted on 1 July 1952.[46]

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[44] Ltr, QMS to TQMG thru CG, Fort Lee, Va., 16 Apr 52, sub: Revised Program of Instruction, Aerial Delivery Course, Army School Catalog No. 10-OE-30a. Notation on the bottom of this ltr in ink: "Sch Files - returned Informally by OQMG - Capt Waller - Letter will be resubmitted. E. J. McK." The initials were those of Lt Col Edward J. McKillips, OIC, Curriculum Br, QMS. Evidentally the two-week plan was not abandoned by the QMS until a telecon with OQMG on 1 May 52 when the OQMG personnel definitely stated that the two-week plan was to be abandoned in favor of a three-week one. Telecon between Capt Waller, OQMG, and Lt Col McKillips, Curriculum Br, QMS, on 1 May 52 noted in DF, Lt Col McKillips, Chief Curriculum Br, to Sch Sec, QMS, 2 May 52, no. sub.

[45] Ltr, QMS, to OQMG, thru CG, Fort Lee, Va., 19 May 52, sub: Revised Program of Instruction, Aerial Delivery Course, Army School Catalog No. 10-OE-30a.

[46] Ltr, OQMG, to OCAFF, 28 May 52, sub: Revised Program of Instruction, Aerial Delivery Course, Army School Catalog No. 10-OE-30a, and 1st Ind OCAFF to TQMG, 1 Jul 52, sub as above.

The publication of the first program of instruction in aerial delivery since June 1951, appeared in September 1952. The first class to receive training under this program was Class No. 53-1 which began on 4 September 1952.[47]

After 4 September the Aerial Delivery Course consisted of 142 hours of training which was integrated with Phase II of the Parachute Packing, Maintenance, and Aerial Delivery Course. It consisted of 114 hours of training in aerial delivery and 28 hours of miscellaneous subjects. The aerial delivery training corresponded to Phase II of the longer course with but two exceptions. The basic aerial delivery subjects comprised 17 hours instead of 16 because of an added hour of instruction on parachute inspection, a subject taught in the maintenance phase of the Parachute Packing, Maintenance, and Aerial Delivery Course. Aerial delivery container rigging was reduced from 10 to 8 hours as individual weapons case instruction and equipment bag instruction, subjects taught in the longer program, were dropped from the Aerial Delivery Course.[48]

One other point of difference between the courses should be noted. Admission requirements for officers and warrant officers were the same for both courses but, whereas enlisted men had to be corporals or below to get into a parachute packing, maintenance, and aerial delivery class, there were no restrictions on the grade level for the Aerial Delivery Course.

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[47] (1) Info supplied by Capt Weisinger, Administrative and Supply Off, Abn Gp, QMS, 26 Nov 52. Capt Weisinger succeeded Capt Grosseto as Administrative and Supply Officer on 22 Oct 52. (2) DF, OIC, Abn Gp, to Planning & Control Office, QMS, 28 Aug 52, sub: Annual Report.

[48] POI, Aerial Delivery Course, Sept 52.

## Special Airborne Courses

In addition to the Parachute Packing, Maintenance, and Aerial Delivery Course and the Aerial Delivery Course, the Airborne Group faculty prepared and presented orientation courses in airborne activities to reserve units, ROTC cadets, and other groups. In addition, numerous hours of instruction were given to the many officers and combined courses of instruction given at the Quartermaster School.

One proposal which never materialized is worthy of mentioning. That was the proposal to present an Aerial Delivery Indoctrination Course for personnel who were not parachute qualified who required a knowledge of airborne capabilities.[49]

The Quartermaster School faculty prepared the suggested POI and the first class was scheduled to meet on 17 December 1951 for a period of five days. The second class was set for 29 April 1952. The capacity of both was to be twenty students and work was to be integrated into the Parachute Packing, Maintenance, and Aerial Delivery Course.[50]

The Office of The Quartermaster General spent approximately a month in reviewing the proposed program of the course. On 7 November, The Quartermaster General informed the School that the study would continue

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[49] Ltr, OQMG, to CG, Fort Lee, Va., ATTN: QMS, 12 Sep 51, sub: Proposal to establish a Course of Instruction in Aerial Delivery Indoctrination.

[50] Ltr, QMS, to OQMG, thru CG, Fort Lee, Va., 6 Oct 51, sub: Request for Approval to Establish a School Course of Instruction in Aerial Delivery Indoctrination.

and the reporting date of the first class was postponed until April 1952.[51] In November, The Quartermaster General wrote that the first class would have to be postponed again, this time until 1 May due to the revision of schedules for the Parachute Packing, Maintenance, and Aerial Delivery Course.[52] But then the whole matter came to an inglorious end before any classes could be held. Later in the spring, a representative from the OQMG informed Lt Colonel Pencak that the course had been called off indefinitely.[53]

The problem of presenting instruction in air transportability subjects to various classes at the Quartermaster School unlike the proposed Indoctrination Course, greatly concerned the Airborne Group. Before the activation of the Airborne Group, certain aspects of air transportability had been taught to students in the Quartermaster School. At the time that the first PPM&AD class opened, instructors in various departments of the School were presenting airborne instruction to students in the following courses:

| Course | Hours |
|---|---|
| Quartermaster Officers Advanced Course | 14 |
| Associate QM Officers Advanced Course | 13 |
| QM Company Officers Course | 8 |
| Associate QM Company Officers Course | 8 |
| General Supply Management Course | 11 |
| Commissary Management Course | 11 |

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51 Ltr, OQMG, to CG, Fort Lee, Va., 7 Nov 51, sub: Request for Approval to Establish a School Course of Instruction in Aerial Delivery Indoctrination.

52 Ltr, QMS, to OQMG thru CG, Fort Lee, Va., 4 Jan 52, sub: Scheduling of Classes for Aerial Delivery Indoctrination Course.

53 Info supplied by Maj Herber, 26 Nov 52. The exact date of this occurrence is not known.

| Course | Hours |
|---|---|
| Warehouse Management Course | 15 |
| Subsistence Storage Course | 10 |
| Quartermaster Storage Course | 10 |
| Unit Supply Course | 10 |
| Subsistence Supply Course | 10 |
| Quartermaster Supply Course | 10 |
| Packing and Crating Course | 10 |
| Total | 140[54] |

When additional hours of instruction in air transportability were needed, the Airborne Group was called upon to prepare them. On 8 August 1951 and again on 21 September of the same year, the Group submitted proposals for additional hours of instruction for the Quartermaster Company Officer Course when it was planned to increase that program from 15 to 20 weeks.[55] Initially, the Airborne Group instructors did not teach these hours on air transportability.

In November 1951, the Director of Training, suggested that the Airborne Group assume responsibility for presenting all air transportability instruction. Lt Colonel Dodge answered that this would not be possible until after 1 April 1952 because of the expansion of personnel and physical facilities which would be required.[56] Airborne Group instructors continued to present 10 hours of instruction in air transportability

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54 DF, Maj Julian Turner, Curriculum Br, to OIC, Abn Sup Grp, QMS, 20 Jul 51, sub: Air Transportability Instruction.

55 (1) DF, OIC, Abn Sup Gp, to Dir of Tng, QMS, 8 Aug 51, sub: Twenty Weeks Company Officers Course. (2) DF, Asst OIC, Abn Sup Gp to Dir of Tng, QMS, 21 Sep 51, sub: Twenty Weeks Company Officers Course.

56 DF, OIC, Abn Gp, to Dir of Tng, QMS, 7 Dec 51, sub: Quartermaster School Airborne Instruction. The exact date of the suggestion by the Dir of Tng that air transportability subjects be taught by the Airborne Group is not known, but this DF mentions that it was made verbally. As the DF is dated 7 Dec, this would put the suggestion in November or early December.

to the Packing and Crating Course, 14 hours to the Quartermaster Company Officer Course, and 1 hour to the Associate Quartermaster Company Officer Course.[57]

On 1 July 1953, the Airborne Group assumed responsibility for conducting a full-scale program of air transportability, now called aerial delivery instruction.[58] This expanded program of instruction consisted of 829 hours. Ten different courses, five officer and five enlisted, received from six to twenty-four hours of instruction.

In addition, Airborne Group instructors were required to present many orientation or indoctrination courses for special groups during the first eighteen months of operation. The most important of these were the following:

a. Quartermaster Reserve Officers Training Corps Annual Summer Camp, 1952. Approximately 1,600 ROTC cadets broken into nine groups were given two-hour tours of the airborne shops. The cadets witnessed the aerial delivery exercise at the Wonju Drop Zone on 14 July and were given a briefing on airborne supply activities by personnel of the Group.[59]

b. United States Military Academy Cadets, 1952. The cadets visited Fort Lee from 22 to 24 June 1952. A demonstration of aerial delivery techniques was given them in Shop B and in the Quartermaster School

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[57] DF, OIC, Abn Gp, to Comdt, QMS, thru Dir of Tng, 5 Feb, sub: Manpower Survey.

[58] Told to the writer by Lt Col Pencak, 27 Aug 52. See also DF, OIC, Abn Gp, to Program Sec, Curriculum Br, QMS, 31 Jul 52, sub: Distribution of POIs.

[59] DF, OIC, Abn Gp, to Dir of Tng, QMS, 1 Jul 52, sub: Instructor Requirements and Total Amount of Instruction for ROTC Summer Camp.

demonstration area.[60]

c. Organized Reserve Corps Training, 1951 and 1952. During 1951-1952, instructors provided several periods of instruction for members of the Organized Reserve Corps. On 28 April 1952, the Group gave a two-hour orientation tour to Virginia Mobilization Designation Detachment #8.[61] This was followed on 12 July by a five-hour special course for eleven officers and four enlisted men from the 80th Airborne Division (Reserve).[62] In the same month, a group of New York Procurement Agency personnel were given a similar course.[63] Finally, during the period of 10-24 August, the Airborne Group was responsible for instructing members of the 927th Quartermaster Aerial Supply Company, a reserve unit from Kentucky.[64]

d. Representatives of Education Institutions, 1952. A group of officials from eleven colleges and universities visited Fort Lee during July to observe training of ROTC students. They were given a one-hour briefing on airborne activities on 8 July.[65]

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60 DF, OIC, Abn Gp, to OIC, IT&G, QMS, 24 Jun 52, sub: West Point Instruction.

61 DF, OIC, Abn Gp, to Dir of Tng, QMS, 24 Apr 52, sub: Instruction to be Given ORC Students.

62 DF, OIC, Abn Gp, to OIC, Curriculum Br, QMS, 3 Jun 52, sub: Orientation and Tour of Airborne Activities.

63 DF, OIC, Abn Gp, to OIC, Curriculum Br, QMS, 16 Jul 52, sub: Active Duty Training...

64 Told to the writer by Capt Soroka, 15 Sep 52.

65 DF, OIC, Abn Gp, to Dir of Tng, QMS, 7 Jul 52, sub: Visit of College Dignitaries.

e. The 623rd Quartermaster Air Equipment Reclamation and Maintenance Company, 1952. In response to a request from The Quartermaster General, a 204-hour program of instruction in parachute maintenance was organized for fifty members of the 623rd QM Air Equipment Reclamation and Maintenance Company.[66] The special course was presented to twenty-five members of the company from 25 September to 25 October 1952; and the remainder were trained by the group from 5 December 1952 to 17 January 1953.[67]

f. The 82nd Airborne Division, 1952. In the summer of 1952, the Commanding General, 82nd Airborne Division requested a condensed course in aerial delivery subjects for selected personnel of his division. Consequently, a one-week course was delivered to 100 officers, warrant officers, and enlisted men of the 82nd Airborne Division from 25 September through 2 October.[68]

By the end of 1952, it was obvious that the Airborne Group was to be called frequently for assistance in preparing special courses and tours to meet the constantly increasing interest in Quartermaster airborne operations.

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[66] Telecon between Col Henderson, OQMG, and Col Evans, Asst Comdt, QMS, 16 Jul 52.

[67] Info supplied by Lt Evans, 1 Dec 52.

[68] Ltr, QMS, to CG, 82nd Abn Div, Fort Bragg, N. C., ATTN G-3, 82nd Abn Div, 3 Oct 52, sub: Special Aerial Delivery Course.

## Airborne Group Instructors

The instructors assigned to the faculty of the Airborne Group were probably better qualified as specialists than any other group in the Quartermaster School. The selection of instructors had been made using rigid and high standards. Furthermore, the School received the cooperation and assistance of top level Department of the Army agencies in procuring the best qualified men for the positions.

A study of the qualifications and experience of the personnel of the Airborne Group made in July 1951 revealed that of the 10 officers assigned, six had seen combat duty in World War II in airborne operations. At least five had performed either parachute packing, maintenance, or aerial delivery duties in the United States. Only one officer was not a qualified parachutists and he became qualified later.

The twenty-eight sergeant instructors were equally well-qualified. Twenty-six were qualified parachutists and one of the remaining two attended the Parachute School after assignment. The other man was transferred and replaced by a qualified parachutists. At least fifteen were qualified riggers and had attended the Riggers School. The same number had practical experience as instructors. All twenty-six had experience in parachute packing. The average length of experience of the officers and enlisted men in airborne activities was 48 months.[69]

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[69] DF, OIC, Abn Gp, to Sch Sec, QMS, 6 Jul 51, sub: Personnel Data-Airborne Supply Group.

A subsequent questionnaire indicated the variety and depth of experience.[70]

All of the ten officers assigned to the group were jump qualified. All had been in airborne prior to assignment to the Group. Eight officers had had previous experience in the United States in parachute packing, maintenance or aerial delivery. The longest experience had been 108 months. Two officers had had previous overseas experience in parachute packing, maintenance or aerial delivery. The longest experience had been 30 months. The total months experience in the United States in packing, maintenance, or aerial delivery was 197 which gave an average per officer of 19.7 months.

The total months experience overseas in the same field was 42. This average out to 4.2 months per officer. Seven officers had volunteered for their assignment with the Airborne Group. The remaining three had been assigned without volunteering. All of the 50 enlisted men replying to the questionnaire were jump qualified. Fourteen had been

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[70] This questionnaire, which was submitted by the writer, asked these questions:

Name and Grade
Present Duty in Airborne Group
Date Assigned to Airborne Group
Did you volunteer for duty with Airborne Group
Length of experience in any phase of parachute packing, maintenance, and aerial delivery work in Continental U. S. prior to being assigned to Airborne Group (years and months)
Length of experience in any phase of parachute packing, maintenance, and aerial delivery work overseas prior to being assigned to Airborne Group (years and months)
Brief history of your airborne training and experience in the Armed Forces.

Sixty replies were received (10 officer and 50 enlisted). The conclusions in the text are based on these replies.

assigned directly from parachute school to the Airborne Group as students and thus could not be said to have had airborne experience. Thirty-six enlisted men had had previous experience in the United States in parachute packing, maintenance or aerial delivery. The longest experience had been 102 months. Fourteen had had previous overseas experience in parachute packing, maintenance or aerial delivery. The man with the longest experience had 42 months. The total months experience in the United States in parachute packing, maintenance, or aerial delivery was 1,086. This averaged 21.7 months per man. The total months experience overseas in the same field was 341 which averaged 6.8 months per man. Forty-three men had volunteered for duty with the Airborne Group, six had not volunteered, and one declined to answer the question.

Thus, all military personnel were jump qualified and the majority had experience in airborne work. This was in conformity with the policy of having men who had had practical experience in parachute and aerial delivery work in oversea areas instruct in the Airborne Group.[71] The great majority of personnel had volunteered for the assignment which produced high morale. When vacancies occurred and adequate replacements were not available from the field, the Quartermaster School established the policy of using graduates of the Parachute Packing, Maintenance, and Aerial Delivery Course with high academic ratings as instructors.[72]

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[71] Told to the writer by Dr. Allen, 10 Sep 52.

[72] DF, OIC, Abn Gp, to Asst Comdt, QMS, 11 Dec 51, sub: Request for Instructors, and DF, OIC, Abn Gp to CO 3rd Bn, 9135 TSU (Abn), 12 Jul 52, sub: Request for Instructor Personnel.

All instructors were required to take the two-week Instructor Training and Guidance Course at the Quartermaster School before teaching.

Only two problems darkened the instructor situation and these were solved as the program progressed. One was the problem of obtaining qualified instructors and maintaining high morale. The first of these problems was caused by a high rate of turnover. In the first year approximately 60 percent of the original group were reassigned and had to be replaced. To counteract these losses, the School began to assign outstanding graduates as instructors.[73]

Poor enlisted instructor morale was occasionally encountered in the summer and fall of 1951. At least it was noted by members of the Parachute Packing, Maintenance, and Aerial Delivery Classes 2 and 3.[74] This morale problem was caused basically by the fact that several men who were not qualified as instructors had been promised promotions upon assignment to newly activated units at other stations. Thus, those who were so qualified and remained at the School felt that their proficiency had kept them from being promoted. The School acted quickly to secure authority to grant promotions and began to promote enlisted airborne

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[73] DF, OIC Abn Gp, to Planning & Control Officer, QMS, 28 Aug 52, sub: Annual Report.

[74] Ltr, seven members of PPM&AD Class #2 to TQMG, thru CG, Fort Lee, Va., 7 Sep 51, sub: Parachute Packing, Maintenance and Aerial Delivery Course, and Ltr, 15 members of PPM&AD Class #3 to Comdt, QMS, thru CO, 3rd Bn (Abn) 9135 TSU, Fort Lee, Va., and OIC, Abn Sup Gp, QMS, 6 Oct 51, sub: Critique of Parachute Packing, Maintenance and Aerial Delivery Course (10-OE-30), Class No. 3.

FIGURE 11

COMPARISON OF TABLES OF DISTRIBUTION FOR AIRBORNE GROUP
QUARTERMASTER SCHOOL

| TABLES OF DISTRIBUTION<br><br>Officer: | 16 March 1951 | 10 October 1951 | 1 January, 24 April 1952 | 1 July 1952 | 11 September, 25 October, 18 November, 1952 |
|---|---|---|---|---|---|
| Lt. Col. (Parachute Maint Officer) | 1 | 1 | 1 | 1 | 1 |
| Major (Parachute Maint Officer) | 1 | 1 | 1 | 1 | 1 |
| Capt (Parachute Maint Officer) | 3 | 3 | 3 | 3 | 3 |
| Capt (Parachute Maint Officer) | 1 | 1 | 1 | | |
| Lt (Parachute Maint Officer) | 3 | 6 | 6 | 3 | 5 |
| Enlisted: | | | | | |
| E-7 M/Sgt (Course Sgt Maj) | | 1 | 1 | 1 | |
| E-7 M/Sgt (Supply Sgt) | | 1 | 1 | 1 | 1 |
| E-7 M/Sgt (Instr Parachute Packing) | 3 | 4 | 3 | 3 | 4 |
| E-6 SFC (Supply Sgt) | | 1 | 1 | 1 | |
| E-6 SFC (Instr Parachute Packing) | 9 | 9 | 9 | 20 | 16 |
| E-5 Sgt (Adm Spec) | | 1 | 1 | | |
| E-5 Sgt (Supply Sgt) | | 2 | 2 | | |
| E-5 Sgt (Instr Parachute Packing) | 15 | 15 | 15 | 12 | 20 |
| E-4 Cpl (Clerk-Typist) | | 1 | 1 | | |
| E-4 Cpl (Unit Supply Spec)<br>(Asst Supply Spec) | 1 | 1 | | | |
| E-4 Cpl (Instr Parachute Packing) | 17 | 18 | 18 | 3 | 8 |
| Civilian: | | | | | |
| Graded Positions (Clerical Help) | 3 | 1 | 2 | 2 | 2 |
| Wage Board Positions (Sewing Machine Repair) | | 2 | 2 | 2 | 2 |
| OFFICERS | 9 | 12 | 12 | 8 | 10 |
| ENLISTED | 44 | 54 | 53 | 41 | 49 |
| CIVILIAN | 3 | 3 | 4 | 4 | 4 |
| GRAND TOTALS | 56 | 69 | 69 | 53 | 63 |

instructors as quickly as possible. Those who were discontented were replaced as soon as replacements were available.[75] After the fall of 1951, instructor morale ceased to be a problem of any importance.

## The Students of the Airborne Group

The two principal sources for students for both the Parachute Packing, Maintenance, and Aerial Delivery Course, and the Aerial Delivery Course were the airborne organizations in the field, and pipeline personnel from the Quartermaster Replacement Training Center at Fort Lee.[76] Students for special courses usually belonged to the first of these categories. The great majority of the early classes came from parachute maintenance companies and similar airborne units. Gradually, during the latter months of 1951 and into 1952, more pipeline personnel were sent as students. Although only a few pipeline personnel attended the first six or seven classes, by the time Class #11 of the Parachute Packing, Maintenance, and Aerial Delivery Course had graduated, 12 percent of the total to that date were from the pipeline.[77]

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[75] 1st Ind, Asst Comdt, QMS, 20 Sep 51 to ltr from seven members of PPM&AD Class #2 to TQMG, dated 7 Sep 51.

[76] AR 320-5 defines the personnel pipeline as "the channel by means of which personnel flows from original sources of procurement to their ultimate point of use."

[77] Ltr, Sch Sec, QMS, to Airborne Newsletter, Joint Airborne Troop Board, Fort Bragg, N. C., thru CG, Fort Lee, Va.

Without exception Quartermaster School officials remarked on the high quality of students attending these courses. One officer instructor repeated that "the students are of a very high caliber. The morale is very good with every group that comes through."[78] The Quartermaster School Educational Advisor was of the opinion that they were "a good calibre of students."[79] One of the officers in charge of one phase of the training stated emphatically, "I believe that there is no place in the Army where you will get better men."[80] The Assistant Commandant, later Commandant, of the Quartermaster School, Colonel Roy T. Evans, Jr., categorized them as "very high-type enlisted men".[81]

These statements seemed to be borne out by comparing them with students in other courses with similar entrance requirements. It will be recalled that a score of 90 or higher in Aptitude Area VII was a necessity for the admission of enlisted students to airborne courses of instruction. The two other Quartermaster School courses requiring a minimum grade of 90 in this aptitude area were the Clothing and Textile Repair Course, and Shoe Repair Course. A survey of 146 students in these latter courses showed that the average Aptitude Area VII grade for clothing and textile repairmen and shoe repairmen averaged 93.4. But the average

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[78] Told to the writer by Capt Thompson, 30 Sep 52.

[79] Told to the writer by Dr. Allen, 10 Sep 52.

[80] Told to the writer by Capt Burns, 8 Sep 52.

[81] Told to the writer by Col Evans, 5 Aug 52. Col Evans succeeded Brig Gen Everett Busch as Comdt, QMS, on 1 Sep 52.

grade of a random sampling of 146 airborne group students was 109.2. This range of 15.8 points, while not decisive, tends to indicate that the aptitude of Quartermaster airborne personnel for these jobs was above average.[82] When high aptitude is combined with the fact that all students were volunteers, it may be seen that the statements about the quality of personnel were not exaggerated.

It is well that this was true because, the students were expected to maintain high standards of performance. An instructor remarking about standards of performances noted "one thing that is different is that we do not have a half-way mark. They either attain desirable standards or they are out."[83] Speaking of the training program, the Assistant Officer in Charge of the Airborne Group stated that "It is a continuous close-screening process. If a man gets in the door, it does not mean that he is going to stay there. If a man doesn't have 'what it takes,' he is on his way out. If there is anything wrong in his personal habits, make-up, or work, there is no tolerance of him in the course." The Officer-in-Charge added, "There are no second chances. He's either in or out."[84] The records of the Airborne Group were filled with orders relieving students from the airborne courses. The principal reasons for requesting such relief were unauthorized absences from class

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82 Figures supplied by Lt James J. Judd, Student Sec, Enlisted Personnel, Fort Lee, 17 Sep 52.

83 Told to the writer by Capt Hospelhorn, 15 Sep 52.

84 Told to the writer by Maj Herber and Lt Col Pencak, 27 Aug 52.

for as little as one day, low academic rating, and poor attitudes. All three were of about equal importance. In justice, it should be added that authorized absence from class usually resulted in a request by the Airborne Group to re-enroll the student in a later group. Furthermore, if lax students were penalized exceptional students were rewarded. The records were replete with lists of outstanding graduates.

High standards naturally resulted in a high ration of failures and incompletions. Of the first twelve PPM&AD classes, 23.6% of the officers and enlisted men did not complete the course. Of a total enrollment of 877 students, there were 127 failures, a percentage of 14.5. There were 15.3% enlisted and 3.4% officer failures. A study of the first twelve Aerial Delivery Classes, including Class #2 which was cancelled, revealed 17.2% of the students did not complete the training. There were eleven failures in 122 students, a failure ratio of 9%. There were no officer failures but 11.6% of the enlisted students did not pass the course.[85] Figures 12 and 13 show the enrollees, graduates, failures and relief of students from these classes.

Several classes were attended by military personnel from allied nations. This was particularly true of the Aerial Delivery Course which, through the first twelve classes, had had seven officers and ten enlisted men of other nations in attendance. The PPM&AD Course had been taken by only two officers from allied nations.

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[85] Class figures furnished by Mr. Houchins, Student Accounting Br., QMS. Percentage figures by writer.

FIGURE 12

COURSE STATISTICS,
PARACHUTE PACKING, MAINTENANCE, AND
AERIAL DELIVERY
1951-1953

| Class Number | Starting Date | Graduation Date | Enrolled | | Failed | | Relieved | | Graduated | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Off | EM | Off | EM | Off | EM | Off | EM |
| 1 | 21 May 1951 | 11 Aug 1951 | 4 | 55 | 0 | 9 | 1 | 11 | 3 | 35 |
| 2 | 18 Jun 1951 | 8 Sep 1951 | 6 | 87 | 0 | 13 | 0 | 19 | 6 | 55 |
| 3 | 16 Jul 1951 | 6 Oct 1951 | 2 | 86 | 0 | 9 | 0 | 17 | 2 | 60 |
| 4 | 13 Aug 1951 | 3 Nov 1951 | 7 | 48 | 0 | 7 | 0 | 4 | 7 | 37 |
| 5 | 1 Oct 1951 | 22 Dec 1951 | 5 | 74 | 0 | 19 | 0 | 6 | 5 | 49 |
| 6 | 29 Oct 1951 | 2 Feb 1952 | 6 | 75 | 0 | 14 | 0 | 7 | 6 | 54 |
| 7 | 26 Nov 1951 | 1 Mar 1952 | 3 | 32 | 2 | 1 | 0 | 5 | 1 | 26 |
| 8 | 7 Jan 1952 | 29 Mar 1952 | 5 | 41 | 0 | 1 | 0 | 2 | 5 | 38 |
| 9 | 11 Feb 1952 | 3 May 1952 | 7 | 99 | 0 | 19 | 0 | 6 | 7 | 74 |
| 10 | 17 Mar 1952 | 7 Jun 1952 | 6 | 85 | 0 | 18 | 1 | 6 | 5 | 61 |
| 11 | 21 Apr 1952 | 12 Jul 1952 | 5 | 86 | 0 | 9 | 0 | 6 | 5 | 71 |
| 12 | 26 May 1952 | 16 Aug 1952 | 4 | 85 | 0 | 16 | 0 | 15 | 4 | 54 |
| 13 | 30 Jun 1952 | 20 Sep 1952 | 8 | 90 | 0 | 11 | 1 | 13 | 7 | 66 |
| 53-1 | 4 Aug 1952 | 25 Oct 1952 | 4 | 78 | 0 | 11 | 0 | 1 | 4 | 66 |
| 53-2 | 8 Sep 1952 | 29 Nov 1952 | 3 | 99 | 0 | 25 | 1 | 6 | 2 | 68 |
| 53-3 | 13 Oct 1952 | 17 Jan 1953 | 9 | 91 | 0 | 12 | 0 | 2 | 9 | 77 |
| 53-4 | 17 Nov 1952 | 21 Feb 1953 | 5 | 98 | 0 | 17 | 0 | 4 | 5 | 77 |
| 53-5 | 12 Jan 1953 | 4 Apr 1953 | 5 | 101 | 0 | 24 | 0 | 13 | 5 | 64 |
| 53-6 | 16 Feb 1953 | 9 May 1953 | 3 | 59 | 0 | 8 | 0 | 4 | 3 | 47 |
| 53-7 | 23 Mar 1953 | 13 Jun 1953 | 3 | 53 | 0 | 10 | 0 | 13 | 3 | 30 |
| GRAND TOTALS: | | | 100 | 1,522 | 2 | 253 | 4 | 160 | 94 | 1,109 |

FIGURE 13

COURSE STATISTICS,
AERIAL DELIVERY COURSE,
1951-1953

| Class Number | Starting Date | Graduation Date | Enrolled | | Failed | | Relieved | | Graduated | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Off | EM | Off | EM | Off | EM | Off | EM |
| 1 | 16 Jul 1951 | 11 Aug 1951 | 4 | 27 | 0 | 1 | 0 | 0 | 4 | 26 |
| 2 | (Cancelled) | | | | | | | | | |
| 3 | 10 Sep 1951 | 6 Oct 1951 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 4 | 8 Oct 1951 | 3 Nov 1951 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 5 | 26 Nov 1951 | 22 Dec 1951 | 3 | 1 | 0 | 0 | 1 | 0 | 2 | 1 |
| 6 | 7 Jan 1952 | 2 Feb 1952 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 7 | 30 Jan 1952 | 27 Feb 1952 | 1 | 30 | 0 | 6 | 0 | 9 | 1 | 15 |
| 8 | 5 Mar 1952 | 2 Apr 1952 | 3 | 17 | 0 | 2 | 0 | 0 | 3 | 15 |
| 9 | 9 Apr 1952 | 7 May 1952 | 3 | 4 | 0 | 0 | 0 | 0 | 3 | 4 |
| 10 | 14 May 1952 | 11 Jun 1952 | 1 | 3 | 0 | 0 | 0 | 0 | 1 | 3 |
| 11 | 18 Jun 1952 | 16 Jul 1952 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 12 | (Cancelled) | | | | | | | | | |
| 52-13 | 23 Jul 1952 | 20 Aug 1952 | 6 | 12 | 0 | 2 | 0 | 0 | 6 | 10 |
| 53-1 | 4 Sep 1952 | 25 Sep 1952 | 1 | 3 | 0 | 1 | 0 | 0 | 1 | 2 |
| 53-2 | 9 Oct 1952 | 30 Oct 1952 | 3 | 18 | 0 | 1 | 0 | 0 | 3 | 17 |
| 53-3 | 13 Nov 1952 | 5 Dec 1952 | 2 | 15 | 0 | 0 | 0 | 0 | 2 | 15 |
| 53-4 | 12 Feb 1953 | 5 Mar 1953 | 0 | 10 | 0 | 0 | 0 | 2 | 0 | 8 |
| 53-5 | 19 Mar 1953 | 9 Apr 1953 | 2 | 9 | 0 | 1 | 0 | 0 | 2 | 8 |
| 53-6 | 23 Apr 1953 | 14 May 1953 | 9 | 19 | 0 | 2 | 0 | 0 | 9 | 17 |
| 53-7 | 1 Jun 1953 | 18 Jun 1953 | 1 | 7 | 0 | 0 | 0 | 0 | 1 | 7 |
| GRAND TOTALS: | | | 45 | 176 | 0 | 16 | 1 | 11 | 44 | 149 |

In an effort to improve the quality of instruction during the early period of operation, students were encouraged to offer critiques and evaluations of the courses. Although this policy still held in the fall of 1952, it was not as freely indulged as it had been in 1951. Two PPM&AD classes in particular (Classes No. 2 and No. 3) made lengthy criticisms of the program.[86] Both criticisms offered several helpful suggestions on lengthening or shortening various parts of the curriculum, improving instructor morale, and correcting certain administrative difficulties. However, the critical evaluation by Class No. 3 went too far in the opinion of some officers at Fort Lee, and provoked equally lengthy replies.[87] But because of a lack of published doctrine in the field and the newness of the program, constructive suggestions were welcomed by the Airborne Group.

In summary, it may be said that the average student came to the classes well qualified, keenly interested in the course, showed above-average aptitude in his work, and was forced to conform to exceptionally high standards in order to graduate.

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86 Note 74.

87 1st Ind, CO, 3rd Bn (Abn), 9135 TSU, Fort Lee, Va., to Comdt, QMS, thru COT, 1st Gp, 9135 TSU, Fort Lee, Va., 12 Oct 51, and 2d Ind CO, Hq, 1st QM Gp, Fort Lee, Va., to Comdt, QMS, 13 Oct 51, to Ltr from 15 members of PPM&AD # 3, 6 Oct 51. Also DF, OIC, Abn Gp, to Asst Comdt, QMS, 22 Oct 51, sub: Comments on Attached Letter.

## The Perennial Supply Problem

When the Airborne Group began operations in May 1951, it lacked a definite table of allowances. Of course, items of equipment and various supplies that were needed for training could be furnished without a published table of allowances. But it was highly desirable that such a document be prepared and published as soon as possible.

The proposed table of allowances submitted on 11 January 1951 continued to be the basis for requisitioning throughout the summer of 1951.[88] Operational experiences soon revealed that additions to the proposed T/A would be necessary. For example, on 9 July 1951 the group requested seven additional jeeps for aerial delivery training.[89] Meanwhile, the OIC of the Airborne Group and personnel of the OQMG began work on separate proposed Table of Allowances.[90] In August, the two tables were consolidated.[91] In late October Lt Colonel Dodge was informed that a

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88 See pp. 59-63.

89 DF, Adm & Sup Off, Abn Gp, QMS, to AC of S, G-4, Fort Lee, Va., 9 Jul 51, sub: Justification for Additional Seven 1/4 Ton Trucks in T/A.

90 DF, OIC, Abn Sup Gp, to Senior Instr, 22 Jun 51, sub: T/A for Parachute Packing, Maintenance and Aerial Delivery Course Covering Nonexpendable Equipment.

91 Ltr, QMS, to OQMG, ATTN: Lt Col Bass, Abn Plans and Policies Sec, thru CG, Fort Lee, Va., 17 Aug 51, sub: Correction to Ch 1, undated Table of Allowances 10-2.

table of allowances was in the process of gaining final approval and that the published table could be expected in approximately 90 days. This meant that it would not appear before late January or early February of 1952.[92]

Delay in receiving this much-wanted table was inevitable under the circumstances. New developments in the airborne field in addition to changing requirements for personnel in the field added immeasurably to the already difficult task of preparing a table of allowances. It was virtually impossible to predict in the first months of operation all of the nonexpendable equipment which the Airborne Group could use.

A mimeographed Change 1 to T/A 10-2 was received at the Quartermaster School in October 1951. It listed a total of 198 different items to be issued in connection with airborne training.[93] This was followed by the final printed change 1 which appeared on 13 February 1952.

When the Airborne Group, after nine months of operation, finally received a printed table, a careful check was made to see how well it filled the needs. There were a total of 186 items in the published table. Several substitutions were made and twelve items were deleted from the mimeographed change. Some of the deletions were important, such as the A-4 aerial delivery container; A-5 aerial delivery container; A-6 aerial

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[92] DF, OIC, Abn Gp, to Dir of Tng, QMS, 29 Oct 51, sub: Report of TDY.

[93] Mimeo T/A 10-2, C1, undated.

delivery container; 76-mm anti-tank gun aerial delivery kit, crawler-type airborne tractor, and 2 1/2 ton truck. Twelve kitchen work tables were substituted for 12 fabric cutting tables which had been requested.

Before the end of the eighteenth month of training, all but a few of these items had been taught.[94] The G-11A parachute assembly and the 28-foot personnel parachute assembly were soon added to the curriculum and the model 29K71 shoe patching sewing machine replaced the 29K70 as soon as the piece of equipment was received. The models 131W113, 55-5, 68SV69, and 68SV70, sewing machines in change 1 were later dropped from the list.[95]

Repeatedly, since the publication of the table of allowances, the Airborne Group has been forced to request changes. On 24 March 1952, a request was made for an M29C amphibian cargo carrier and a 55 multiple mount gun and carriage.[96] Less than a month later, the Airborne Group requested deletion of three items including 90-mm gun and carriage.[97] In June they requested one type of shears be substituted for another which had been authorized in the table of allowances and had proven to be

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[94] See figs 5, 7, 8, and 9.

[95] Info supplied by Capt Charles D. Butts, Instr, Maintenance Sec, Abn Gp, QMS (10 Dec 52).

[96] DF, Adm & Sup Off, Abn Gp, to AC of S, G-4, Fort Lee, Va., 24 Mar 52, sub: Addition of Items to T/A 10-2, C1.

[97] DF, Asst OIC, Abn Gp, to Dir of Serv & Sup, QMS, 21 Apr 52, sub: Equipment Requirements for Conducting FY 53 Training.

unsatisfactory.[98] Within two months after this a request was made for an increase in the allowance of the 28-foot personnel parachute assembly from 60 to 100.[99]

Taken individually, these requests are of relatively minor significance but, collectively, they indicate the constantly changing supply needs in the field of airborne training. They serve to point up the complexity of the problem of supply encountered by the Airborne Group. It must be borne in mind that throughout much of this period the Quartermaster Corps was faced with the huge task of converting Air Force stock numbers and nomenclature to those used in the Army. This task was a major one until May of 1952 when, except for a few odds and ends, it was largely completed.[100] It was apparent in the fall of 1952 that, due to changes in techniques in the airborne field, the table of allowances would require more frequent revisions than could be expected of other Quartermaster School instructional group tables.

The story of the table of allowances for expendables may be more briefly told. On 27 September 1951, the Quartermaster School submitted to the OQMG a list of supplies for a proposed T/A 10-100-6, Allowances of Quartermaster Expendable Supplies for Maintenance of Parachutes and

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98 DF, Adm & Sup Off, Abn Gp, to AC of S, G-4, Fort Lee, Va., 10 Jun 52, sub: Deletion and Additions to T/A 10-2.

99 DF, OIC, Abn Gp, to Dir Sup & Serv, QMS, 1 Aug 52, sub: Request for Change in T/A 10-2, Change 1.

100 Told to the writer by Capt Grosseto, 28 Aug 52. The problem of conversion was accomplished in large part by the Quartermaster Board, Fort Lee, Va.

Allied Equipment. This T/A was published on 27 November 1951. It listed approximately 140 items composed mostly of such expendables as needles, thread, tape, webbing, cord, wax, pins, grommets, and fasteners. Office supplies and other miscellaneous expendables were obtained under the provisions of T-A 10-100, Allowances of Quartermaster Expendable Supplies, 17 January 1951.

## Field Exercises and Maneuvers

From V-J Day through the spring of 1952, the Department of the Army conducted at least eight important maneuvers and field exercises involving airborne or aerial supply functions. They were conducted under climatic conditions ranging from tropic to arctic and they tested a wide variety of new airborne techniques.[101]

All of these maneuvers had something of importance to contribute to the Quartermaster School. This is particularly true because of the scarcity of other published doctrine. Some of them gave information that was to be of relatively little value to the Airborne Group. SNOWDROP, YUKON, and PORTREX belong in that category. Others were of the utmost importance in teaching the new course. Most important in this respect were SWARMER, SOUTHERN PINE, SNOWFALL, and LONG HORN.

As is always the case, observers at the maneuvers were numerous and their reports voluminous. Careful studies were made of these reports

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[101] See p. 13 for a list of these maneuvers.

and detailed post-mortem examinations were held at higher headquarters. The fruits of these studies were available to the Airborne Group. Material relative to early maneuver exercises, as well as later ones, was easily accessible through the facilities of the Quartermaster Technical Training Service Library at Fort Lee. Many members of the Airborne Group had participated in these maneuvers while they had been assigned to the 11th Airborne Division or 82nd Airborne Division, each of which had played roles in some of the exercises.

A complete evaluation of the contributions each of these maneuvers made to the success of the Parachute Packing, Maintenance, and Aerial Delivery Course is not a part of this study. But certain conclusions as to the principal contributions of the more important can be briefly stated.

Task Force FRIGID ran several test drops with the T-7 parachute assembly, the Hart parachute assembly, and the reserve parachute. Drops of equipment from the open door of a C-47 aircraft and a drop of a 75-mm howitzer accompanied by the necessary manning personnel was accomplished from a C-82. It was recommended in the Final Report that, among other things, "means of transporting motorized vehicles rapidly and effectively to the ground be perfected, such as the dropping of the M29C Cargo Carrier from the C-82 type airplane by use of the "ribbon" parachute. This would solve one of the greatest difficulties of airborne units--transportation needed for tactical mobility upon the ground."[102]

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[102] Final Report of AGF Task Force Frigid (Fort Monroe, Va: Hq, Army Ground Forces, 1947), p. 192.

At SNOWDROP there was only one resupply drop in the final field exercise. Because of errors in calculations, the loads landed four miles from the drop zone. This evidentally influenced at least one observer to conclude that "resupply by glider or air-landed is still considered more efficient" in cold weather. But the report concluded, "it is believed that Exercise SNOWDROP conclusively proved that airborne cold weather over snow operations are feasible and practical."[103]

The first maneuver to test the practicability of large-scale air drops was SWARMER. Major General W. H. Middleswart stated that "Exercise SWARMER in North Carolina undertook to prove on a gigantic scale, that it was possible to establish an airhead in enemy territory and develop it into a major offensive."[104] During the exercise, such items as 105-mm howitzers, 40-mm AA guns, 1/4 ton trucks, and aerial delivery containers filled with rations, gasoline, or ammunition were dropped. Also, there was an opportunity to observe a Quartermaster Airborne Parachute Maintenance Company in operation under simulated combat conditions. SWARMER offered convincing proof of the potential uses of properly trained packing, maintenance, and aerial delivery men in the field. It also

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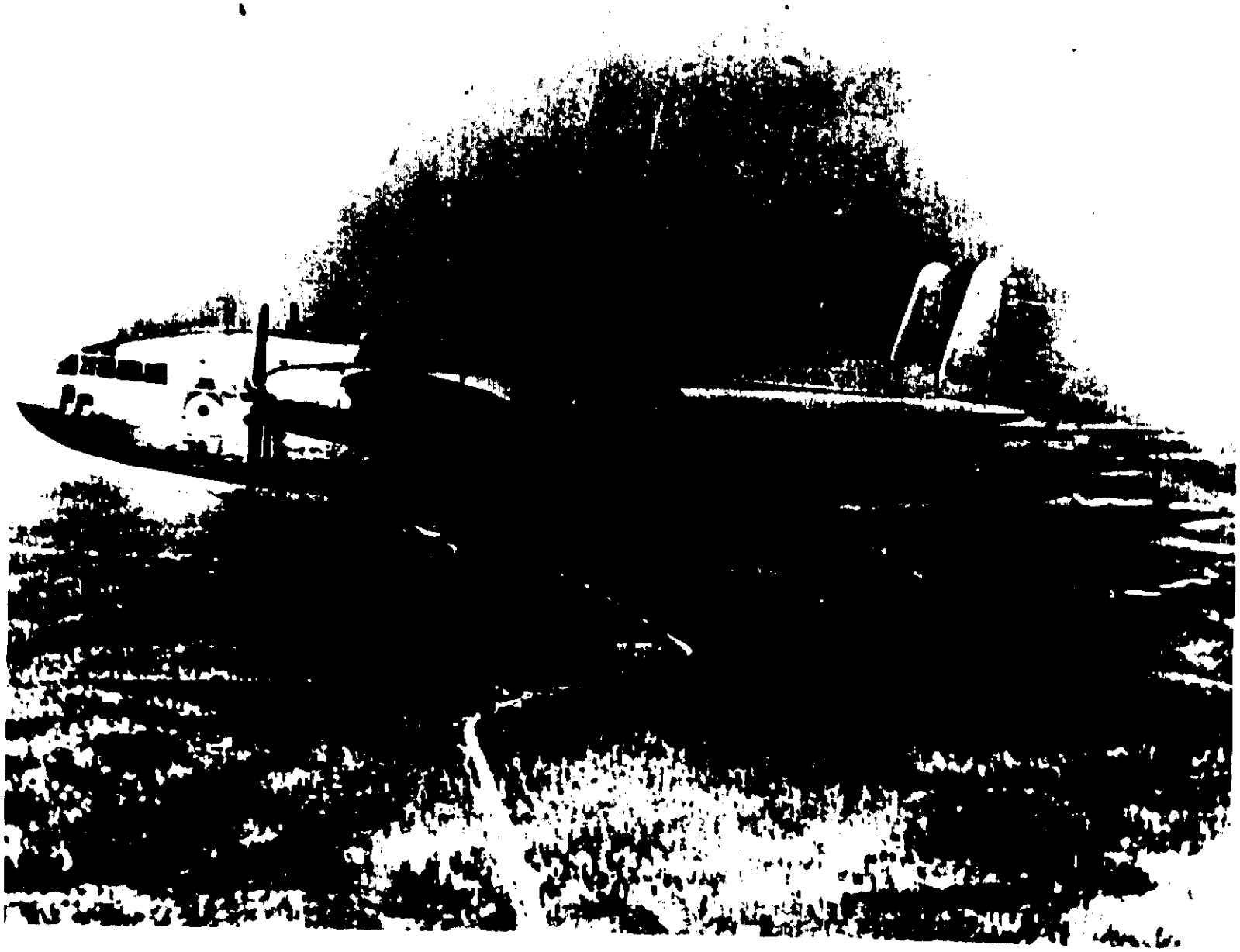
103 Snowdrop (Fort Monroe, Va. : Hq, Army Field Forces, 1948), pp. 33-34.

104 Maj Gen W. H. Middleswart, "The Army QMC Accepts a Challenge" in The Quartermaster Review (Washington, 1950), XXX, No. 2, p. 6.



A 2½ ton truck just after leaving the cargo aircraft. The 2½ ton truck was not dropped by the Airborne Group during the first year and a half of training but future development plans called for rigging and dropping of the truck probably in the spring of 1953.

showed that the delivery of a wide variety of supplies and equipment was not a visionary scheme, but a practical reality. The Final Report on SWARMER recommended that experimentation and testing be stepped up as much as possible. It also advised the establishment of a Joint Airborne Center under the direction of the Joint Chiefs of Staff to study the problems of airborne operations. SWARMER, probably more than any preceding maneuver, gave direction to the nascent Airborne Group at the Quartermaster School.[105]

SOUTHERN PINES, like SWARMER, provided a large-scale test of aerial resupply capabilities. About 4,500 Quartermaster troops participated including a Quartermaster Aerial Supply Company and a Parachute Maintenance Company. The most valuable recommendations to come from the maneuvers as far as the Airborne Group was concerned were those found in travel reports prepared by Lt Colonel H. G. Roller and Lt Colonel E. A. Zaj, observers from OQMG. Both officers suggested that some types of aerial delivery containers and drop kits needed a lot of development work on them before they would be entirely practical. Weaknesses in airborne operations were pointed out and suggestions to remedy them were made.[106]

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105 Final Report, Exercise SWARMER, April-May, 1950 (Fort Benning, Ga: n.p., 1950), 00.27-33. See also Maj Thomas R. Cross, "Operation of the Airborne Division Parachute Maintenance Company" in The Quartermaster Review (Washington, 1950), XXX, No. 2, pp. 12-16 cf.

106 (1) Report of Travel by Lt Col H. G. Roller, OQMG, to "Southern Pines" maneuver exercise from 9 Aug to 29 Aug 51. (2) Report of Official Travel by Lt Col E. A. Zaj, Air Plans and Policy Office, OQMG, to "Southern Pines" maneuver exercise from 22 Aug 50 - 27 Aug 51.

Dropping a 40 mm gun attached to two G11a parachutes at Weeju Drop Zone, Camp Pickett, Va.

In the final analysis, the most important contribution of SOUTHERN PINES was to underscore what had been learned at SWARMER about the uses of aerial delivery in combat.[107]

SNOWFALL was not only the largest winter maneuver held in the United States to that date,[108] but it also was one of the most demanding tests of aerial delivery ever devised. There were fifty-three drops of heavy equipment totaling slightly over 162 tons. The following items were dropped: 1/4 ton trucks, 3/4 ton trucks, 1/4 ton trailers, 75-mm pack howitzers, 105-mm howitzers, 40-mm anti-aircraft guns, M55 multiple mounts, 4.2 inch mortars, mines, wire, and containers holding ammunition, gasoline, C-rations, and medical supplies. Observers assigned to the parachute packing, maintenance, and aerial delivery operations submitted reports which affected the Airborne Group. For example, one observer, in addition to making specific suggestions on rigging techniques, pointed out that "not only should more emphasis be placed on details of rigging during the instruction phase, but that emphasis should be placed on teaching noncommissioned officers (particularly) and officers why certain kit components are used in the rigging of heavy loads and how these various

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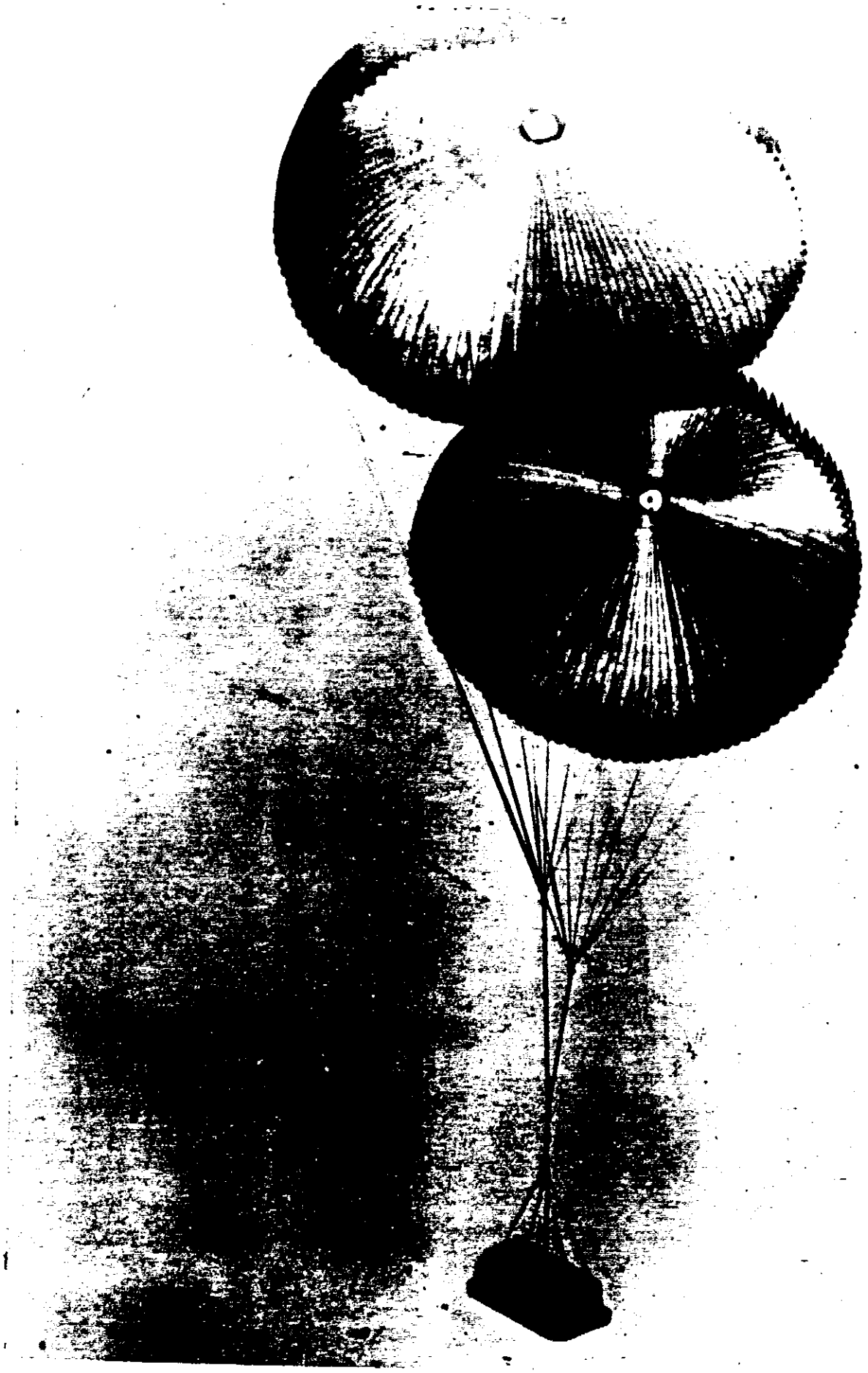
[107] It may be well to emphasize that in Korea during 1950 and 1951 the 2348th QM Airborne Air Supply and Packaging Co (later redesignated) as the 8081st QM Aerial Resupply Co) was proving that aerial supply under actual combat conditions was as practical as maneuvers such as SWARMER had tended to show.

[108] The Key, ORC Training Bulletin (Fort Lee, Va: The QM School, 1951), III, No 4, p. 1.



A 5,000 lb. load-bearing platform dropped with two G11a parachutes, Wonju Drop Zone, Camp Pickett, Va.

components function."[109] Other observers pointed out that the 601st Quartermaster Aerial Supply Company had been improperly employed by being attached to the 11th Airborne Division and thus had not been given a chance to show its true capabilities.[110] As more personnel were trained by the Airborne Group this type of misuse would become less probable.

LONGHORN was the largest exercise held since the famous pre-World War II Louisiana maneuvers. It correspondingly resulted in the largest aerial resupply mission to that date. The 601st Quartermaster Aerial Supply Company, responsible for aerial delivery during the maneuver, dropped 85.3 tons of class I supplies, 94.5 tons of Class III supplies, and 43.3 tons of equipment, for a total of 223.1 tons.[111] As at SWARMER, SOUTHERN PINES, and SNOWFALL, there were many concrete recommendations and suggestions made by observers which directly affected the Quartermaster School. One officer recommended, among other things, that better distribution of technical material be made to airborne units and airborne school. He further suggested that the table of organization and equipment for the Quartermaster Aerial Supply Company be revised to include additional personnel and equipment, and that a new MOS for an aerial delivery and heavy drop officer be developed. Also, he deemed it advisable for three or four senior captains or majors who had graduated from the

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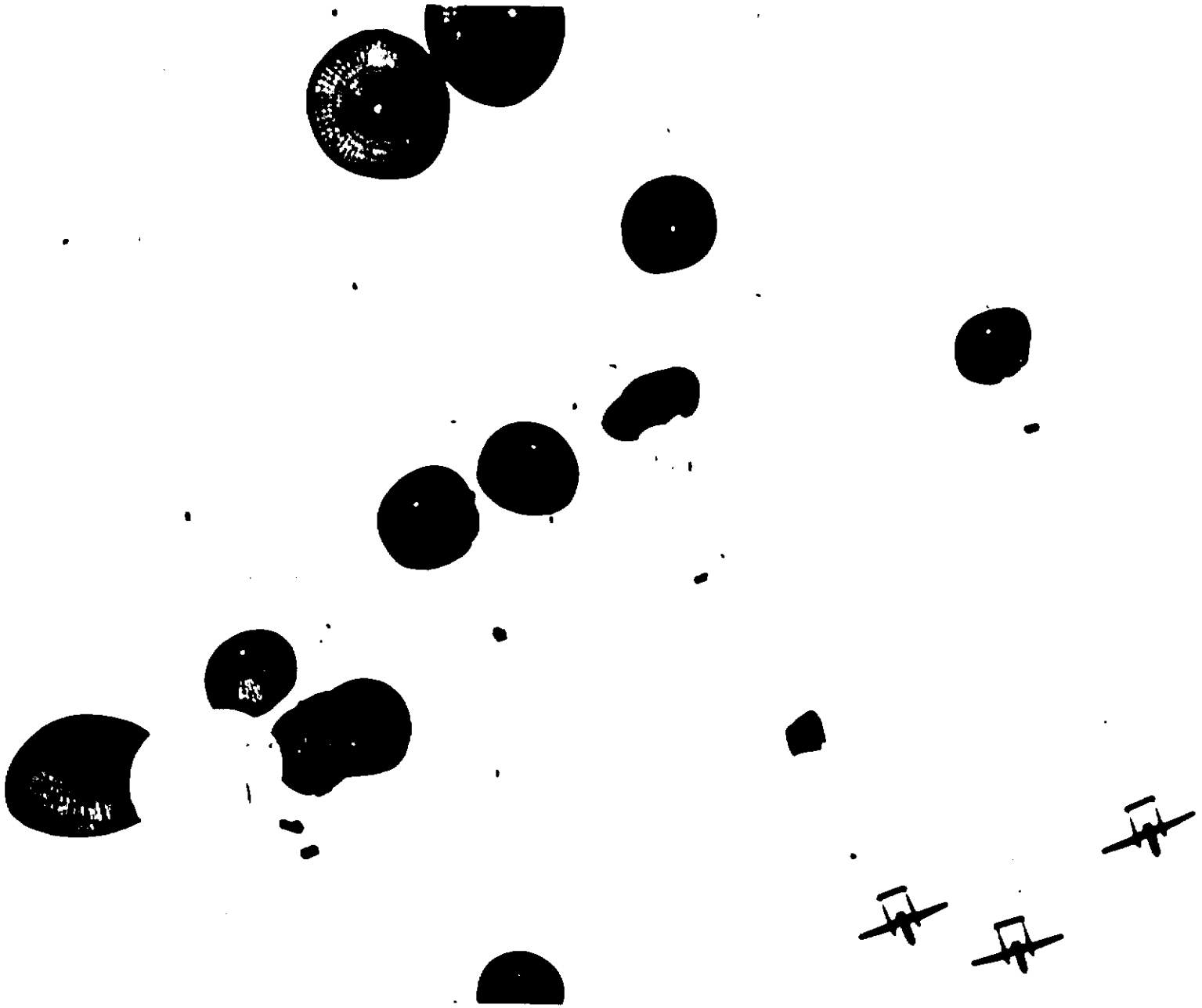
[109] Hight, Maj James L., Report on Exercise "Snowfall" (Fort Bragg, N. C.: AFF Board No. 1, 1952), p. 5. This report lists the items dropped, the total drops, and the total weight dropped as given in the text on p. 9.

[110] Report of Official Travel by Mr. R. C. McKechnie and Capt H. T. Riley, OQMG, to Operation Snowfall from 7 Feb 52 to 14 Feb 52, 26 Feb. 52.

[111] Quartermaster Aerial Supply, Exercise Longhorn, (n.p., 1952), Sec 9, Summary-Recommendations.



Mass drop of heavy equipment during an aerial delivery exercise. Several ¼ ton trucks, 105 mm howitzers, and 6,000 lb. load bearing platforms may be seen in the picture.

Parachute Packing, Maintenance, and Aerial Delivery Course to be assigned to parachute maintenance companies for four to six months of on-the-job training.[112] Another officer reiterated the importance of obtaining published doctrine especially for special types of materials handling equipment.[113]

There is no doubt that the Airborne Group used the lessons furnished by these maneuvers. File copies of many of them were kept in the Group headquarters building and, on at least one occasion, a report was circulated among the officers with the notation by Lt Colonel Pencak that "there are many lessons to be learned in this report."[114] Lt Colonel Pencak stressed the importance of SWARMER, SOUTHERN PINES, SNOWFALL, and LONGHORN in relation to the operation of the Airborne Group.[115] Captain Hospelhorn expressed the opinion that field maneuvers such as SWARMER and SNOWFALL, in which he participated, were of value for testing airdrop techniques.[116] Another officer, Captain Thompson, pointed out that one can always gain from maneuvers.[117]

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[112] Bass, Lt Col Arthur C., Report of Official Travel (Washington, D. C., OQMG, 1952, p. 14.

[113] Report of Official Travel by Lt Col E. A. Zaj, Field Serv Div., OQMG, to Operation Longhorn from 21 Mar to 29 Mar 52, 11 Apr 52.

[114] DF, Asst OIC, Abn Gp, to All Officers, Abn Gp, 17 Apr 52, sub: Report of Exercise "Snowfall."

[115] Told to the writer by Lt Col Pencak, 27 Aug 52.

[116] Told to the writer by Capt Hospelhorn, 15 Sep 52.

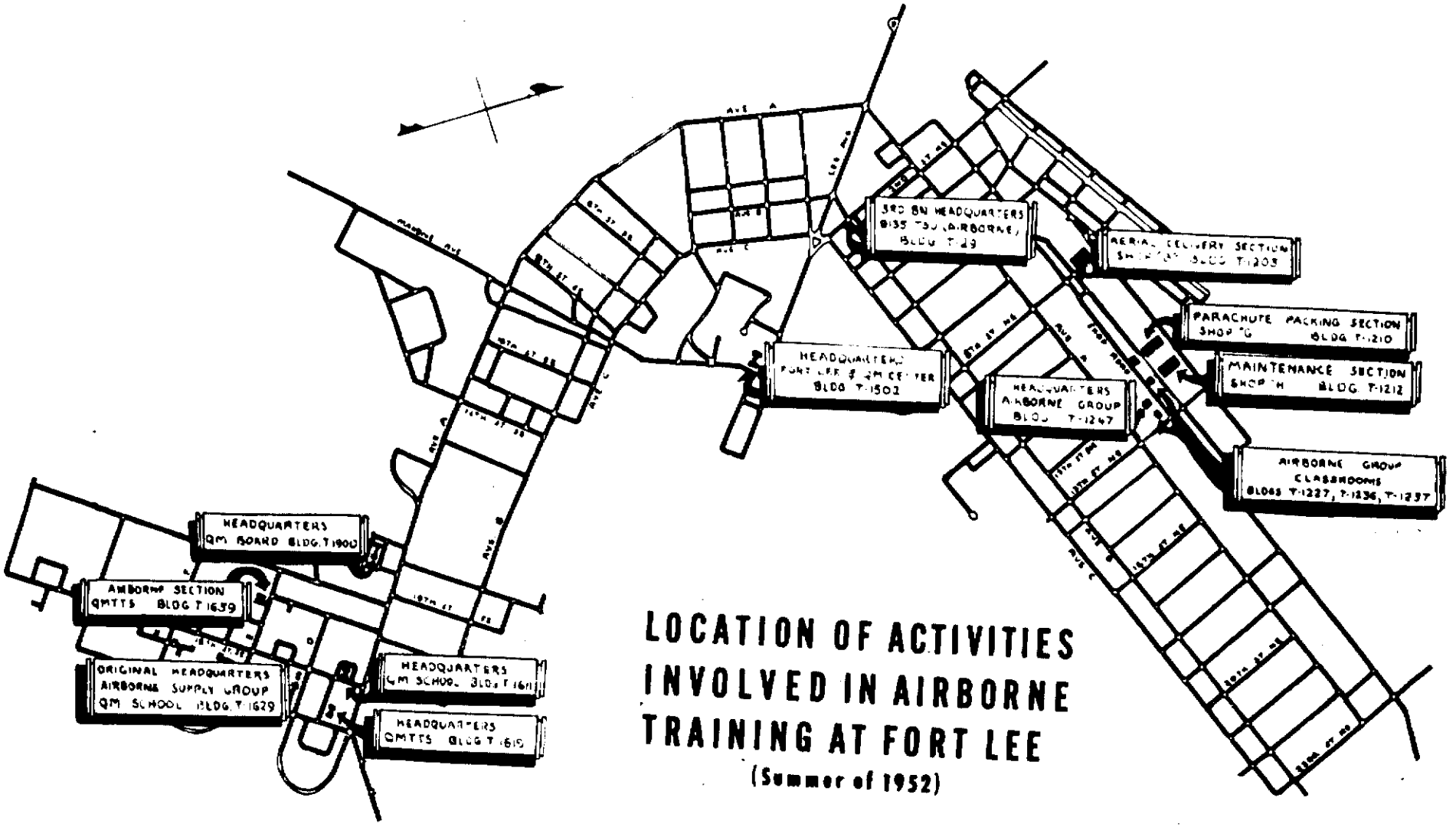
[117] Told to the writer by Capt Thompson, 30 Sep 52.

In summarizing the relationship of field maneuvers to the airborne training program, it is clear that field exercises were of great importance simply because they offered the only way to learn the effectiveness of the course in any large-scale operation. The Airborne Group was new and its graduates had not been tested in conflict except for a few who went to Korea. Therefore, conclusions and recommendations found in observers' reports were of more than academic value.

## The Widening Scope of Airborne Group Activities

As the Airborne Group of the Quartermaster School became operational, it grew in stature within the Department of the Army. More and more the counsel and advice of its faculty was solicited and accepted on airborne supply doctrine, equipment, and techniques. Also the group was called upon to participate in demonstrations and public liaison work. A list of the more important of these activities along with the contribution are listed below:

a. OQMG-Airborne Center Joint Projects Conference (Fort Bragg, North Carolina, 13-15 November 1950). Lt Colonel Dodge represented both the Quartermaster School and the Personnel and Training Division of OQMG at this conference. Among the several topics of interest discussed, the most important to the Airborne Group was one entitled Aligning the QM Abn School and Tng Program with the doctrinal concepts of AAC." Colonel Dodge presented the proposed program of the School




# LOCATION OF ACTIVITIES INVOLVED IN AIRBORNE TRAINING AT FORT LEE

(Summer of 1952)

and it was accepted by the conferees.[118]

b. Army Airborne Conference (Army Airborne Center, Fort Bragg, North Carolina, 19-24 February 1952). This conference was attended by Major Raymond T. Smith and Major Robert B. Galbreaith. The conference was conducted in two phases--first, there was an orientation on current airborne problems and seminar discussions on them. Second, service school representatives presented the curriculum of their perspecitve schools in airborne training. The officers attended different seminars in the first phase but both participated in phase two.[119]

c. Conference on Weight and Balance (Army Field Forces Board No. 1, Fort Bragg, North Carolina, 24 April 1951). The primary purposes of this conference were to review methods of computing weight and balance for cargo aircraft, and to determine devices which would simplify these methods. Captains Vincent G. DeRitis and Edward G. Thomas attended as representatives of the Airborne Group.[120]

d. OQMG Conference on Maintenance of Air-Type Equipment (OQMG, 7 May 1951). This was a one-day conference held in Washington to formulate plans for the accomplishment of Quartermaster air-type equipment

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[118] DF, Lt Col A. E. Dodge, OIC, Aerial Resupply Gp, to Comdt, QMS, dated 15 Nov 50, sub: TDY to Fort Bragg, N. C.

[119] DF, Maj R. B. Galbreaith to OIC, Opns Instr Gp, QMS, 24 Feb 51, sub: Report of Conference, The Army Airborne Center.

[120] TDY Report on Attendance at Conference on Weight and Balance by Vincent G. DeRitis, Jr., and Edward G. Thomas, Aerial Resupply Sec, Abn Sup Gp, QMS, no date.

maintenance on the organizational field, and depot levels. It was attended by Captain Thompson. The discussion and conclusions reached there were in large part responsible for Change 1 to AR 750-11.[121]

e. Maintenance Activities at Jeffersonville Quartermaster Depot (6-7 March 1952). Captain Thompson visited the Indiana Depot for the purpose of observing maintenance activities related to the storage of QM air-type equipment. He observed several maintenance practices that could be utilized at Fort Lee and, equally important, he was informed that the graduates of the course who had been assigned to Jeffersonville were proving satisfactory in their work.[122]

f. Technical Advisory Work, Signal Corps (Long Island City, New York, 2-9 April 1952). This was the first of several visits which were to be made by members of the Airborne Group to Signal Corps installations in connection with training films. Major David Herber made this first trip. He served as technical advisor for a film on the rigging of the 105-mm howitzer on the aerial delivery kit. He also reviewed films taken on Operation SNOWFALL.[123] Another trip to the same place

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[121] Ltr, OQMG, to CG, Fort Lee, Va., 13 Apr 51, sub: OQMG Conference on the Maintenance of Air-Type Equipment - 7 May 1951. 2nd Ind, QMS to TQMG, ATTN: Maint Br, Fld Serv Div, 24 Apr 51.

[122] DF, Chief Instr, Maint Sec, Abn Gp, to Comdt, QMS, 17 Mar 52, sub: Report of Travel.

[123] (1) DF, Chief Instr, AD Sec, Abn Gp, to Comdt, QMS, 10 Apr 52, sub: Report of Travel. Major Herber had been appointed advisor in response to a request from Mr. John Spencer, Chief of QMTTS, to Lt Col Dodge for assistance in preparing training films. (2) DF, OIC, Abn Gp, to Dir of Tng, QMS, 18 Feb 52, sub: Attached Correspondence-Training Films. The scripts for 8 training films were to be prepared by QMTTS and photographed at the Signal Corps Photographic Center, New York. Ltr, OQMG, to CG, Fort Lee, Va., 5 Jan 52, sub: Training Films.

was made by Captains Alexander Soroka and John Pingree on 29 September - 1 October 1952 to assist in the preparation of film bulletins on the rigging of the one-quarter ton truck and the packing procedure for the T-7A main personnel parachute.[124]

g. Joint Army-Air Force Publications Conference (OQMG, 2 June 1952). The purpose of this one-day conference was "to work out an improved liaison between the agencies involved in airborne activities in order to expedite the procurement of necessary data required for the preparation of Quartermaster instructional materials which are urgently needed in the field." Lt Colonel Pencak represented the Quartermaster School. Representatives of the Air Force, Army Field Forces, Joint Airborne Troop Board, Army Field Forces Board No. 1, Department of the Army, G-3 and G-4, The Adjutant General, Transportation Corps, and Infantry School were also present. The most important outcome of the conference was that the Quartermaster Technical Training Service should continue to write airborne technical bulletins. Close liaison between OQMG, Army Field Forces Board No. 1, and the Air Force was to be maintained. Conflicts on doctrinal matters were to be decided by Army Field Forces.[125]

Another publications conference was held in Washington on 6 October

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[124] DF, Asst Chief Instr, Pack Sec, to Comdt, QMS, thru OIC, Abn Gp, 3 Oct 52, sub: Report of Travel.

[125] (1) Ltr, OQMG to CG, Fort Lee, Va., 20 May 52, sub: Joint Army-Air Force Airborne Publications Conference. (2) DF, OIC, Abn Gp, to Comdt, QMS, 4 Jun 52, sub: Report of Travel.

1952 at which time approval for the publication of certain technical bulletins and modification work orders was made. Lt Colonel Pencak also attended this conference.[126]

h. Conference on XT-10 Personnel Parachute (Fort Bragg, North Carolina, 28 July 1952). This conference, attended by Lt Colonel Pencak, was convened for the purpose of discussing the drafting of a packing and maintenance publication on the experimental T-10 parachute. There were representatives in attendance from many other units and technical agencies including depots, Army Field Forces, the OQMG, airborne divisions, the XVIII Airborne Corps, and Quartermaster Technical Training Service. It was decided to publish instructions on the parachute and distribute these instructions before the parachute was issued to field agencies.[127]

i. Airborne Safety Board (Fort Bragg, North Carolina, 6-8 August 1952). The initial meeting of the Airborne Safety Board was attended by Lt Colonel Pencak. The purpose of the Board was to make recommendations on airborne safety procedures to the Commanding General, XVIII Airborne Corps, and Chief, Army Field Forces.[128]

Liaison trip with Officials of Fairchild Aircraft Corporation (1-8 October 1952). Captain Hospelhorn was invited to make a tour of certain Army and Air Force Installations with officials of the Fairchild Aircraft Corporation. In the course of the tour Captain Hospelhorn visited Fort

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[126] DF, OIC, Abn Gp, to Comdt, QMS, 8 Oct 52, sub: Report of Travel.

[127] DF, OIC, Abn Gp, to Comdt, QMS, 1 Aug 52, sub: Report of Travel.

[128] DF, OIC, Abn Gp, to Comdt, QMS, 11 Aug 52, sub: Report of Travel.

Bragg, North Carolina; Donaldson Air Force Base, Greenville, South Carolina; 435th Troop Carrier Wing, Miami, Florida; Fort Benning, Georgia; Sewart Air Force Base, Smyrna, Tennessee; and the 11th Airborne Division, Fort Campbell, Kentucky. In addition to obtaining valuable publicity for the Quartermaster Corps airborne program, Captain Hospelhorn returned with several suggestions and recommendations.[129]

Besides these, mention must be made of an aerial delivery demonstration team administratively assigned to the 36th Quartermaster Composite Battalion in 1952. This team was operationally controlled by the Airborne Group. It was on call for demonstrations of aerial delivery when requested. Among other places, it exhibited during 1952 at the Richmond Atlantic Rural Exposition, Virginia; and in such widely scattered points as Atlanta, Georgia; and Philadelphia, Pennsylvania.[130]

There were two clear trends indicated by these outside activities which have just been recorded. First, they show that the Airborne Group had steadily gained in acceptance as an authority on airborne matters. It was increasingly evident that they would serve as a source of information for certain problems of packing and maintenance of parachutes as well as on aerial delivery matters. Coupled with this was the desire of other Army and Air Force agencies and installation to cooperate closely with the Airborne Group. Airborne training at Fort Lee was to be neither

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[129] DF, OIC, Abn Gp, to Comdt, QMS, 13 Oct 52, sub: Report of Travel.

[130] Told to the writer by Capt Soroka, 15 Sep 1952.

regional nor local in outlook or operation. Instead, it was to function in close harmony with the rest of the Armed Forces. It would not serve a passive role but assumed an active and important advisory role.

Second, such events as the National Aviation Exposition and the liaison trip with officials of Fairchild publicized the work being done by the Quartermaster Corps. Indication of an effort to work with commercial enterprises in solving airborne problems was also shown. Activities of this nature had developed in late 1952 to such an extent that they constituted a large proportion of the work load of the Airborne Group.

## A Few Minor Problems, 1951-1953

Some odds and ends on the operation of the Airborne Group remain to be recorded before concluding its history of the first years of its operation.

Throughout 1951, the buildings assigned to the Group remained the same as those which had been under its control in May of that year. But in December an additional warehouse was turned over to the Group and an exchange of buildings was arranged with the Trades Group of the Quartermaster School. The newly assigned building was T-155 which replaced Building T-176.[131] The exchange, also relating to a warehouse, was Building T-1193 for Building T-1209.

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[131] DF, Adm & Sup Off, Abn Gp, to Sch Serv, QMS, 11 Dec 51, sub: Construction of Partition in Warehouse T-155.

Although the Quartermaster School had to rely upon requesting aircraft through Army Field Forces,[132] planes occasionally failed to arrive at the time requested for student jumps and equipment drops. On at least one occasion, the aircraft failed to arrive at all.[133] On other occasions, such as the first equipment drop on 10 August 1951, only one cargo plane arrived instead of three as requested. For the first two student jumps on 10 July and 9 August 1951, only two planes were supplied instead of three.[134] This was unfortunate but it is difficult to see how it could have been avoided except, as was suggested in December of 1951, earmarking aircraft for Fort Lee. Close coordination between Fort Lee authorities, Army Field Forces, and the XVIII Airborne Corps were maintained in order to prevent this happening. But heavy demands on Air Force equipment as well as inaccurate weather forecasting were the most frequent causes of delay.

The authority to award the Master Parachutist Badge and Senior Parachutist Badge was of concern to both students and faculty. All persons connected with the program were eligible to wear the Parachutist Badge. A need soon arose to award the advanced badges to those who met the qualifications. The authority to make the award was not given to the Quartermaster School Commandant.[135] It was not until September 1951

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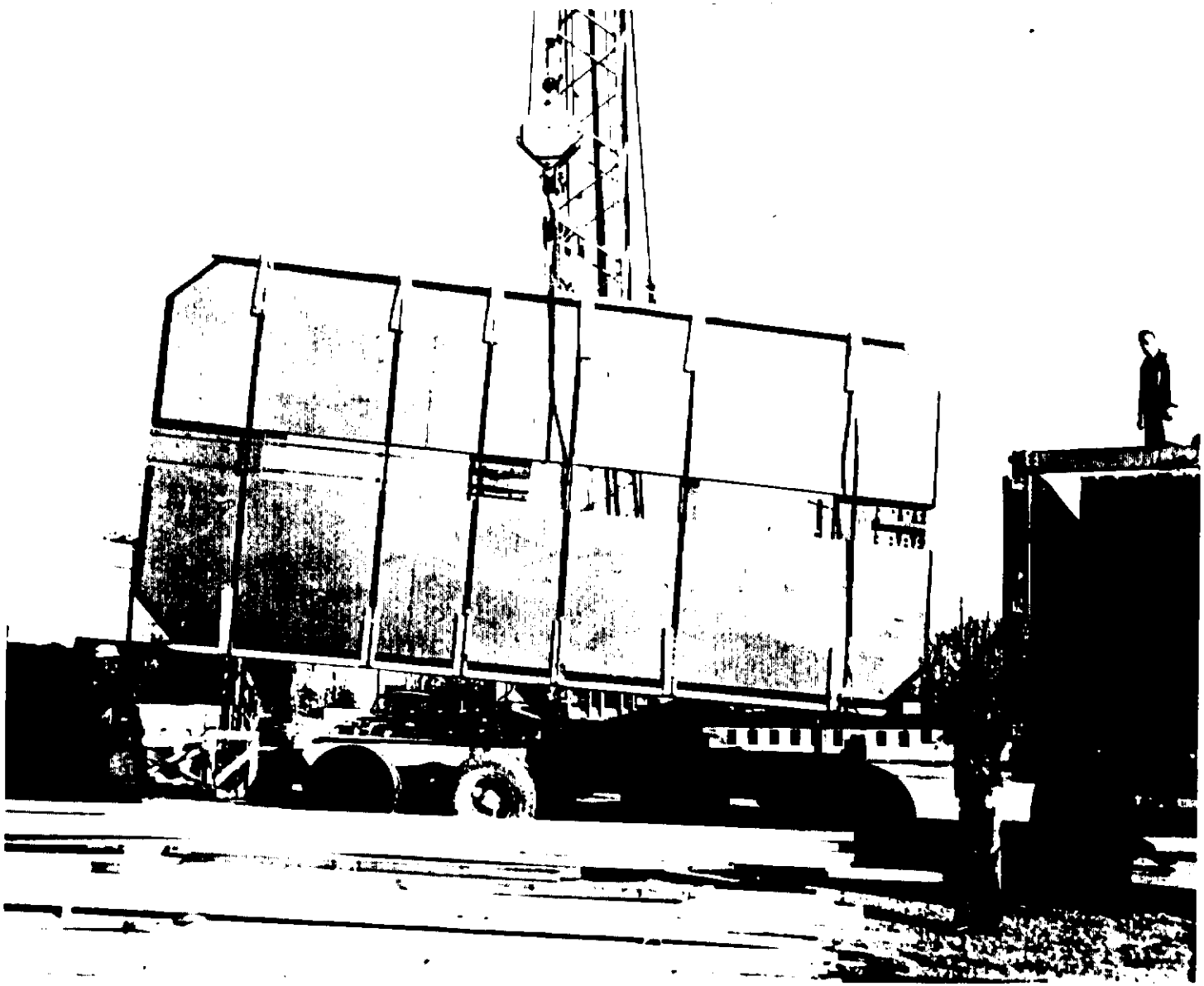
[132] See pp. 59-65.

[133] DF, Asst Comdt, QMS, to CG, Fort Lee, Va., 5 Mar 52, sub: Failure to Receive Aircraft.

[134] DF, Asst Comdt, QMS, to AC of S, G-3, Fort Lee, Va., 13 Aug 51, sub: Aircraft for QM School Instruction.

[135] AR 600-70, 15 April 48.



THE 18' PLATFORM BEING UNLOADED IN THIS VIEW WAS OF A TYPE USED FOR THE DROPPING OF A 9-TON BULLDOZER BY PARACHUTE

that the revised regulation permitted the School Commandant to make the awards.[136]

During the early months of the program, few students refused to make parachute jumps. This excellent condition changed in 1952. On several occasions (31 March, 13 May, 17 June, and 22 July) one or more students refused to jump at Wonju Drop Zone.[137] The School Commandant began proceedings immediately to reduce them in rank, remove them from jump status, and drop them from the course. The students were also subject to courts-martial. It should be pointed out that, although instances of failure to jump become more common with the assignment of pipeline personnel, the number of such men was never serious enough to threaten the success of airborne training at Fort Lee.

The Commandant granted some dispensations regarding the wearing of the uniform for personnel of the Airborne Group in 1951 and 1952. Enlisted instructors could remove their shirts and appear in T-shirts during demonstrations and instructions. Personnel wearing T-shirts were to have their names and ranks stencilled on the front. Officers and students soon followed this example of wearing T-shirts during the summer months. In September 1952, the staff and faculty of the Airborne Group began wearing bright red riggers caps for identification. The Riggers Cap is a long-billed hat similar to that worn by Air Force mechanics. The use

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136 AR 600-70, 24 Sep 51.

137 DF's, OIC, Abn Gp to OIC, Course Opns, QM School, 2 Apr, 15 May, 19 Jun, and 23 Jul 52, sub: Relief of Students.

of the riggers cap began in the 11th Airborne Division Parachute Packing and Maintenance Company and spread throughout similar type units.[138]

As 1952 grew older, the work load imposed by technical assistance for training films was increasing. In addition to plans for making films on eight large aerial delivery kits, the OQMG contemplated motion pictures on parachute inspection, packing, maintenance, and repair, and small cargo aerial delivery containers.[139]

The preparation of field manuals, technical bulletins, and modification work orders on Quartermaster Corps airborne activities was the duty of the QMTTS. But, here again, the Airborne Group was called upon for advisory assistance. This began as early as May 1951, and continued throughout the next year. Written comments on the scripts of proposed publications abound in the files of the Airborne Group.[140] Verbal assistance as well as written criticism and advice was given to QMTTS writers in the preparation of these publications.[141]

In August 1952, the Nonresident Instruction Division of the Quartermaster School requested that technical advisors assist in the ROTC, ORC, and correspondence course program. The chief instructors of the three phases of training were assigned this additional duty of serving as subject area specialists.[142]

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[138] Info supplied by Maj Herber, 17 Dec 52.

[139] DF, OIC, Abn Gp, to Lt Col McIlhiney (QMS), 15 Apr 52, sub: Training Films on Parachute Subjects.

[140] DF, OIC, Abn Gp, to Mr. John Barker (QMTTS), 3 Apr 52, sub: Comments on Outline FM 10-40.

[141] Told to the writer by Lt Col Pencak and Maj Herber, 27 Aug 52 and Capt Hospelhorn, 15 Sep 52.

[142] DF, OIC, Abn Gp, to Actg Dir of Tng, QMS, 13 Aug 52, sub: Assignment of Subject Area Specialists for Coordination with Non-Resident Instructors.

By the end of 1953, the Airborne Group, which had started with a comparatively simple mission teaching a course of instruction in parachute packing, maintenance, and aerial delivery to selected QMC personnel, had received many additional assignments and duties. In a sense, these new assignments were indicative of the increased importance and growing respect earned by the Airborne Group. But this growing respect was not without its price. The increased workload of the staff and faculty made an assignment to the Airborne Group a challenge and a promise of hard work.

# CHAPTER V

## CONCLUSION

Within three years after the adjournment of the Ad Hoc Committee, the Quartermaster Corps and particularly the Quartermaster School had assumed major roles in aerial supply operations. The importance of these roles may be measured by certain concrete results.

First, and most important at Fort Lee, was the establishment and operation of the Airborne Group by the Quartermaster School. Programs of instruction for both a twelve- and a four-week course had been written and revised as operational necessity had dictated. By the end of June 1953, 1,203 officers and men had qualified in all phases of aerial work that was of interest to the Quartermaster Corps including packing, maintenance, and aerial delivery. In addition, during the same period, 193 other officers and men who were already qualified in packing and maintenance were trained in aerial delivery operations. Thus by the end of June 1953, the Quartermaster School had placed 1,306 technically trained and highly skilled persons in the field. The significant fact is that the Quartermaster Corps, starting almost from scratch, had devised a system of training of high quality that would enable the Army to carry on airborne warfare of an intensity never considered possible in World War II.

Second, the Airborne Group of the Quartermaster School quickly found that its duties could not be confined to the two regular courses. Constant demands were made for special short courses, speeches, articles, exhibitions, and demonstrations. Although these were chores that increased the workload of the Airborne Group, they indicated the growing interest of military and civilian bodies in the work being accomplished at Fort Lee. Airborne training was becoming widely recognized for what it was--a new technique of warfare possessing great possibilities in any future war.

Third, the Quartermaster Technical Training Service, in conjunction with the Airborne Group, had written a series of technical publications. These concise manuals and bulletins used large numbers of illustrations to keep abreast of new developments. This, in itself, was no mean achievement. But the big accomplishment was the rapidity with which reliable publications were appearing in a field which had been almost completely ignored and undeveloped.

Quite apart from the scope of this study, was the accomplishments of other Quartermaster Corps agencies in cooperation with the Quartermaster School Airborne Group. These should be mentioned briefly to put the overall mission in its proper perspective. The Quartermaster Board classified items transferred to the QMC from the Air Force. The Board also tested certain airborne equipment and supplies. Although the bulk of airborne testing was conducted at other places such as Army Field Forces Board No. 1, Fort Lee had become the field testing agency for

free-fall and retarded-fall containers, and for loading operations. The Richmond Quartermaster Depot was designated as the major air items supply and storage center for the Army.

Some mention of developments since 1953 are in order. Since that time, the plans made by the pioneers in the Quartermaster airborne instruction program have fared well. The Parachute Packing, Maintenance, and Aerial Delivery Course and the Aerial Delivery Course are still the two principal airborne courses at the Quartermaster School. Even their titles are unchanged and course content bear a marked similarity to that of 1952. The problems encountered in the early days have, for the most part, been resolved. A new drop zone was constructed on the outer edge of the Fort Lee Military Reservation in 1961. The mission of preparing QMC airborne training literature, formerly prepared by the Quartermaster Training Service, was transferred to the Airborne Group (Department) in 1954 with the disestablishment of the QMTTS as a separate agency of the QMC.

All in all, framework of the program has remained basically unchanged since the early days. In fact, remarkably so, the ever-changing nature of military organizations, one fundamental factor has changed. The promise of the success in future operations made in 1950 had become a reality by 1962 and the QMC role in that future was assured.

## APPENDIX A

### TOPICS OF DISCUSSION BY THE FIVE SUBCOMMITTEES OF THE AD HOC COMMITTEE, OFFICE OF THE QUARTERMASTER GENERAL, WASHINGTON, D. C., 1950

SUBCOMMITTEE #1--Requirement, Funding, Purchase, Storage and Issue.

a. The National Security Act of 1947, as amended.

b. Operation of cross-servicing and storage and issue.

c. User dissatisfaction with Air Force supply.

d. Logistical organization of the Air Force for the support of the Army.

e. Air Force logistical organization for war support.

f. Variation in Army and Air Force accounting systems.

g. Current arrangement for division of Army-Air Force responsibilities.

h. Air supply of the Army in wartime.

i. Department of the Army assumption of storage and issue responsibilities.

j. Courses of action and analysis thereof.

SUBCOMMITTEE #2--Depot Maintenance.

a. The relationship of replacement and maintenance.

b. The development of effective maintenance.

c. The relationship of maintenance to materiel scarcity.

d. Department of Defense and Department of the Army policy.

e. Current cross-servicing agreements in the field of maintenance.

f. Equality of cross-maintenance service between the Army and the Air Force.

g. Unsatisfactory quality of Air Force maintenance support.

h. Lead time requirements for new procurement and component assemblies.

i. Relationship of maintenance to Airborne striking capabilities.

j. Impact of unsatisfactory parachute maintenance on the Army procurement program.

k. Attitude of Airborne Commanders.

l. Air Force problems.

m. A restatement of parachute maintenance doctrine.

n. Relaxation of Air Force maintenance restrictions.

o. Maintenance workload on the Division level.

p. Results if Army assumes depot maintenance for parachutes.

q. Course of action and analysis thereof.

SUBCOMMITTEE #3—Organization and Operations.

a. Planning criteria for wartime Airborne support operations.

b. Quartermaster Corps assignment of Army packing, crating and preparation of movement for airlift cargo.

c. Quartermaster Corps assignment of maintenance responsibilities.

d. Failure of the Air Force to provide parachute depot maintenance and plan an organization for wartime support of the Army.

e. Failure to effectively plan for Airborne operations in echelons above the division level.

f. Failure of the Air Forces to plan for air packaging and resupply support for the Army.

g. The need for additional service units in airborne warfare.

h. The technique of Airborne supply.

i. Testimony of very important professional military witnesses.

j. Organizational needs to operate at marshalling area air fields.

k. Provision of a non-divisional parachute maintenance Organization.

l. Air re-supply to other than Airborne units.

m. Lack of necessity for a special supply retrieving organization in the airhead.

n. Responsibility for aerial re-supply operations.

SUBCOMMITTEE #4--Personnel and Training.

a. Technical service responsibility for parachutes and related items.

b. Personnel for movement of Army aerial cargo.

c. Personnel procurement problems in an expanding organization.

d. The peacetime mission of the Army and its relation to the conduct of war.

e. Questions of morale.

f. Inclusion of parachute maintenance in the career ladder.

g. Problems affecting personnel quality standards.

h. Training problems.

i. Location of training facilities.

SUBCOMMITTEE #5--Research and Development.

a. The ultimate airborne goal of the Army.

b. Department of the Army interest in Airborne equipment.

c. Troop carrier and air cargo interest of the Army.

d. Lack of progress in development of airborne techniques and equipment.

e. Legitimate Army interest in air operations.

f. Comparative costs in methods of aerial transportation.

g. Operating relationship of The Quartermaster General and the Chief, Army Field Forces in research and development.

h. Responsibility of the Air Force for Army sponsored research and development.

i. Facilities of the Air Force for research and development support of the Army.

j. Army operating research and development projects.

k. Relationship of research and development programs.

l. Items currently undergoing research and development for airborne operations.

## APPENDIX B

### LIST OF RECOMMENDATIONS MADE BY THE AD HOC COMMITTEE

V. RECOMMENDATIONS. It is recommended that:

1. Purchase responsibility as presently set forth in Section 1 remain the responsibility of the Department of the Air Force and the Department of the Army, respectively. /note 1, infra/

2. The Department of the Army assume and assimilate within its organization the storage and issue responsibilities and operations for those items assigned to the Quartermaster Corps by SR 700-50-200 or any subsequent document published in lieu thereof.

3. Necessary action be instituted to change the assignment of responsibility of depot maintenance for Army parachutes from the U.S. Air Force to the Department of the Army.

4. Nominal additional funds and personnel ceilings be allocated to the Quartermaster Corps to meet the increases incident to assumption of storage, issue and depot maintenance functions.

5. The present assignment of requirements and funds, as set forth in Section 1 be continued. /note 1, infra/

6. A Quartermaster Airborne air packaging and resupply T/O&E be designed in flexible form to perform the missions outlined in Conclusion 16, supra. /note 2, infra/

7. A Quartermaster non-divisional Parachute Maintenance Company T/O&E be designed to perform field and depot maintenance.

8. The T/O&E Quartermaster Parachute Maintenance Company indicate by note that the parachute maintenance officer is an assistant to the division Quartermaster.

9. The doctrine promulgated concerning the technique and operational mission of the Quartermaster air packaging and re-supply company contain information to indicate that it will normally operate on the level of the territorial commander mounting the operation.

10. T/O&E 10-227, QM Clothing and General Supplies Depot Company, be amended to provide for parachute storage.

11. An information program be developed and conducted through established Army media for the purpose of obviating any morale problem which might be created within supported tactical units by redesignation of the Parachute Maintenance Company.

12. The established high standards, qualifications, and capabilities of the Parachute Maintenance Company and assigned personnel be maintained.

13. No changes be made in current recruiting policies for personnel of the Parachute Maintenance Companies.

14. Presently assigned officers be retained with the Parachute Maintenance Companies for the normal tour of duty.

15. Qualified officers be permitted and encouraged to detail or transfer to the Quartermaster Corps.

16. The Quartermaster General establish a course or courses of instruction in the packing, storage and maintenance of parachutes and related items at The Quartermaster School, and that the Parachute Rigging and Repair Course at Fort Benning be phased out at such time as The Quartermaster School is capable of accomplishing this mission.

17. The Army assume conduct of research and development for the following with respect to Quartermaster items:

a. Free fall aerial delivery.

b. Aerial delivery containers where research and development can be completed in Army facilities.

c. Items listed in paragraph 9, SR 700-50-200, as amended, and as outlined below:

(1) Refrigeration equipment.

(2) Gasoline heaters.

(3) Fork lift trucks.

(4) Hand trucks.

(5) Neetsfoot oil.

(6) Beeswax, other waxes and paraffin.

(7) Cleaners and soaps.

(8) Hand creams.

(9) Acid proof aprons.

(10) Goggles.

(11) Paper and paper products.

(12) Inks.

(13) Pressure sensitive tape.

(14) Oil dispensing equipment.

18. The Air Force retain research and development responsibility for the following items set forth in paragraph 9, SR 700-50-200, as amended.

a. Parachute and component parts, whether cargo or personnel.

b. Specialized clothing and equipment and component parts of clothing for air crew members.

c. Hunting knives and other special items used in Air rescue equipment.

d. Special cockpit heaters.

e. Aerial delivery containers when beyond capabilities of existing Army facilities.

19. The Army furnish a section at Edwards Air Force Base when this installation is established with a view to expediting development of items of primary interest to the Army.

20. All projects currently under development by either Department be continued by that Department until completed.

21. The following items included in SR 700-50-200, as amended, be excluded from research and development by the Air Force or the Army as they are commercial in type:

a. Sewing machines, parts and related fabric working machines.

b. Hot plates, scales, sharpening stones, and felt and rope. /note 3, *infra*/

Note 1: Recommendation 1 refers to the fact that purchase responsibility described in detail in Section 1 of the AD HOC Committee Report remain as established without change. This also applied to the assignment of requirements and funds noted in Recommendation 5.

Note 2: Recommendation 6 refers to "Conclusion 16, *supra*," for a list of missions to be performed by the recommended Quartermaster Airborne air packaging and resupply T/O&E. Conclusion 16 reads as follows:

16. A flexible T/O&E is required for airborne air packaging and resupply with the assigned functions of:

a. Receiving, packaging, preparing and storing all classes of supplies for delivery by air transport.

b. Accumulating, segregating and distributing all classes of supplies from designated packing areas to aircraft takeoff points.

c. Packing and inspecting all types of standard aerial containers, harnesses and canopies.

d. Constructing, packing and inspecting various types of improvised aerial containers and harnesses.

e. Constructing, repairing, and operating various types of improvised aircraft loading equipment

f. Loading, lashing cargo, and unloading cargo airplanes and gliders on the ground and operating standard loading equipment in conjunction therewith.

g. Unloading or jettisoning air cargo from aircraft in flight.

h. Executing and supervising the routing and processing of packaging slips, local manifests, statistical records and general records in connection with the above operations.

Note 3: All 21 Recommendations were given careful consideration by the General Staff, Department of the Army. Slight modifications were made in Recommendations 1, 4, 5, 9, and 12. The General Staff recommended a cost study on the establishment of the proposed course of instruction in

packing, storage and maintenance prior to moving from Fort Benning. Recommendations 17, 18, 19, 20 and 21 were referred to the Department of Defense Research and Development Board for further consideration. Recommendation 11 was the only one of the 21 that was disapproved.

## APPENDIX C

### DOCUMENTS RELATING TO THE ESTABLISHMENT OF THE SCHOOL COURSE ON PARACHUTE PACKING AND MAINTENANCE AND AERIAL DELIVERY AT THE QUARTERMASTER SCHOOL, FORT LEE, VIRGINIA

1. Request to establish the course from The Quartermaster General to the Chief, Army Field Forces:

DEPARTMENT OF THE ARMY
OFFICE OF THE QUARTERMASTER GENERAL
Washington 25, D. C.

QMGPN 352.01 30 December 1950

SUBJECT: Request for Approval to Establish a School Course

TO: Chief of Army Field Forces
Fort Monroe, Virginia

1. Pursuant to the new training responsibilities assigned the Quartermaster General for instruction in packing, storage and maintenance of parachutes and related items, as stated in the Report of the Department of the Army OQMG Ad Hoc Committee on QM Aspects of Airborne Operations, 14 April 1950, as approved, request is hereby submitted for the establishment of a school course in parachute rigging and repair and technique of air supply and air equipment maintenance at the Quartermaster School, Fort Lee, Virginia.

2. Attention is invited to the inclosed study on the operation of the school course described above, which was prepared at the direction of

the Assistant Chief of Staff, G-4, Department of the Army. The study has been reviewed by the Offices of the Assistant Chief of Staff, G-4 and G-3. Submission to your Office of the study, together with the information contained herein, was directed by the Assistant Chief of Staff, G-3.

3. Information is furnished in accordance with the provisions of paragraph 4, Section II, SR 350-110-1, 17 April 1950:

a. Title of course: Quartermaster Airborne Technical Course.

b. Location of school course: The Quartermaster School, Fort Lee, Virginia.

c. Purpose of course: Training to inspect, pack, repair and maintain troop and cargo parachutes, aerial delivery containers, heavy drop kits and other aerial resupply equipment; to pack, rig, and load all types and classes of supplies and cargo for aerial delivery and to secure such loads in aircraft; to prepare for ejection and to eject cargo in flight; and to recover parachutes and dropped items of aerial resupply equipment; to perform operator maintenance on T/O&E equipment. Officer MOS for Which Trained: Parachute Maintenance Officer (4820). Enlisted MOS for Which Trained: Parachute Rigger and Repairman (0620).

d. Length of course: Approximately twelve (12) weeks, 528 hours.

e. Scope of course: Personnel and cargo parachute packing; assault and aerial delivery container packaging and rigging; organization, field and depot maintenance of parachutes, containers, heavy drop kits and component parts thereof, operator maintenance of T/O&E equipment; air transportability; heavy drop kits and load bearing platform rigging, loading, ejection techniques and recovery of parachutes and aerial resupply equipment, technical supervision of outloading of equipment and supplies for aerial delivery performed by other Army units; mechanics of sewing machines; operation of sewing machines.

f. Prerequisites:

(1) Officer: Qualified as parachutist. Below the grade of colonel as a commissioned officer of the Regular Army or as an active member of a civilian component.

(2) Warrant Officer: Qualified as parachutist.

(3) Enlisted: Below grade E-5. Qualified as parachutist. Standard score of 100 or higher on aptitude area VII.

g. Proposed capacity and frequency: one hundred (100) students every four weeks.

h. Estimated personnel and monetary requirements to inaugurate proposed school course.

(1) Personnel

(a) Instructor

1. Two (2) officers and fifteen (15) enlisted men, qualified parachutists and qualified to teach parachute and container rigging and packing.

2. Two (2) officers and ten (10) enlisted men, qualified parachutists, and two (2) civilian technicians qualified to teach maintenance of air type equipment and sewing machine operation and maintenance.

3. Two (2) officers and fifteen (15) enlisted men, qualified parachutists and qualified to teach heavy drop techniques.

4. Total instructors: Six (6) officers, forty (40) enlisted men and two (2) civilian technicians.

(b) Administration

1. Three (3) officers, to include one (1) Officer-in-Charge and one (1) Senior Instructor and one (1) Supply Officer.

2. Four (4) enlisted men, to include one (1) Administrative NCO, one (1) Supply NCO and two (2) Parts NCO'S.

3. One (1) civilian stenographer.

4. Total Administration personnel: Three (3) officers, four (4) enlisted men, and one (1) civilian.

(c) Total personnel requirements: Nine (9) officers, forty-four (44) enlisted men and three (3) civilians.

(2) Monetary requirements

(a) Civilian salaries - $14,500.00 per year.

(b) Training funds - $6,000.00 for the first three (3) months of conduct of the course and $5,000.00 yearly thereafter.

(c) Cost of installation of equipment and miscellaneous costs - $25,000.00.

i. Estimated personnel and monetary requirements to operate proposed school course which are not within personnel and/or fund allocations available:

(1) Personnel - Same as subparagraph h (1) above.

(2) Monetary requirements - Civilian salaries

j. Justification: Training requirement of two hundred and twelve (212) Parachute Rigger and Repairmen (MOS 0620) to be trained at the Quartermaster School during the balance of the current fiscal year. This requirement was furnished this Office by Letter, Office, Chief of Army Field Forces, dated 15 December 1950, file ATTNG-12 352/740, subject, "Requirements for Officer Schooling, January through June 1951, and Revised Requirements for Enlisted Specialist Training, August 1950 through June 1951 )Reports Control Symbol ATTNG-EX-(OT)-28)". An additional monthly training requirement of approximately one hundred (100) Parachute Rigger and Repairmen is estimated for the remainder of Calendar year 1951.

4. Because of the extensive preparation necessary for conduct of this course, it is requested that approval be expedited.

5. An information copy of this request is being forwarded to The Adjutant General, Attention: AGPP-M, as prescribed in SR 350-110-1.

FOR THE QUARTERMASTER GENERAL:

1 Incl.
Memo to ACofS/G-4,
29 Nov 50 w/2 Incls.

R. P. HOLLIS
Colonel, QMC
Chief, Personnel and Training Division

2. Follow-up request from Department of the Army (Adjutant General) to the Chief, Army Field Forces:

APP-M 352.11 (2 Jan 51) G-1 8 February 1951

SUBJECT: Request for Approval to Establish a School Course

TO: Chief
Army Field Forces
Fort Monroe, Virginia

1. Reference is made to letter from The Quartermaster General to Chief, Army Field Forces, dated 30 December 1950, file number: QMGPN 352.01, requesting approval for establishment of Quartermaster Airborne Technical Course, which has been reviewed in accordance with SR 350-110-1.

2. Reference is made to attached copy of letter from Commandant, The Quartermaster School, to The Quartermaster General, dated 11 October 1950, subject: Revision of MOS 0620, Parachute Rigger and Repairman, and 1st, 2d and 3d indorsements thereon, in which it is indicated there is an apparent need for inclusion of aerial supply duties within the MOS for Parachute Packer and Repairman (4620). Analysis of the proposed course, based on the expanded concept of this MOS, indicates that the scope of the proposed instruction conforms to the training requirements of this specialty.

3. It is noted in paragraph 1 of the referenced letter, dated 30 December 1950, that The Quartermaster General has become responsible for training in packing, storage and maintenance of parachutes and related items. The current Army School Catalog, DA Pamphlet 20-21, lists course 7-OE-4, Parachute Rigging and Repair, which indicates responsibility was previously assigned to the Infantry School.

4. It is believed desirable:

a. That the proposed course be approved subject to the following changes:

(1) TITLE: Parachute Packing, Maintenance and Aerial Delivery.

(2) PURPOSE: Training in inspection, packing, repairing and maintenance of personnel and cargo parachutes and aerial supply equipment, loading and securing cargo in aircraft, ejection of cargo in flight, and recovery of parachutes and aerial supply equipment. Officer MOS for which trained: Parachute Maintenance Officer (4820). Enlisted MOS for which trained: Parachute Packer and Repairman (4620).

(3) PREREQUISITES:

(a) Officer: Qualified as parachutist. Below the grade of colonel as a commissioned

officer of the Regular Army or as an active member of a civilian component.

(b) Warrant Officer: Qualified as Parachutist.

(c) Enlisted: Grade E-3 or E-2. Qualified as parachutist. Standard score of 80 or higher on aptitude area VII.

b. That Infantry School Course 7-OE-4, Parachute Rigging and Repair, be discontinued upon inauguration of subject course.

5. Course number 10-OE-30 has been assigned this course.

BY ORDER OF THE SECRETARY OF THE ARMY:

1 Incl.
Cpy ltr fm QM Sch to QM Gen dtd 11 Oct 50, w/3 Inds.

B. W. SAUREL
Adjutant General

3. Indorsement to above letter granting approval to establish the school course.

ATTN:-12 352 (30 Dec 50) 1st Ind

Office, Chief of Army Field Forces, Fort Monroe, Virginia 14 Feb 1951

TO: The Quartermaster General, Department of the Army, Washington 25, D.C.

1. The request to establish a Quartermaster Airborne Technical Course at Fort Lee, Virginia is approved. Program of instruction will be submitted to this Office for approval when prepared.

2. The presently established Parachute Rigger and Repair Course at the Infantry School will be phased out when the Quartermaster course is established and functioning, the exact date to be determined by this Office.

3. Quartermaster parachute rigging and repair equipment and personnel necessary to support the Airborne Course at the Infantry School will not be transferred from Fort Benning, Georgia.

4. Direct correspondence between Quartermaster General, the Commandant, The Infantry School and this Office is authorized in connection with the establishment of the new course at the Quartermaster School.

FOR THE CHIEF OF ARMY FIELD FORCES:

1 Incl.
n/c

M. S. LAWTON
Brigadier General, GSC
Chief of Staff

4. Letter from The Quartermaster General to the Commanding General of Fort Lee relative to establishment of the school course with indorsement from Commanding General of Fort Lee to the Commandant, Quartermaster School:

DEPARTMENT OF THE ARMY
OFFICE OF THE QUARTERMASTER GENERAL
Washington 25, D. C.

QMGPN 352.122
(School, QM)

17 February 1951

SUBJECT: Approval to Establish a School Course

TO: Commanding General
Fort Lee, Virginia
ATTN: The Quartermaster School

1. Approval by OCAFF has been received for conduct of the Quartermaster Airborne Technical Course at Fort Lee. Copy of letter request, this Office, and OCAFF approval by 1st indorsement is inclosed (Inclosure No. 1).

2. Status of actions by this Office pertinent to establishment of this course is as follows:

a. Personnel

(1) Request has been made to the Assistant Chief of Staff, G-1, Department of the Army, to effect an increase of nine (9) officer, forty-four (44) enlisted, and three (3) civilian personnel spaces. A copy of the correspondence is inclosed (Inclosure No. 2). Early approval is anticipated. Upon approval, your headquarters will be notified.

(2) Four officers have been assigned to your headquarters and have already joined. Two officers are on orders to join, one immediately and the second, on or about 15 March. Two additional officers will be assigned at the earliest practicable date.

(3) The Adjutant General has been requested to place a mandatory levy on the existing Airborne Divisions, ZI, for forty (40) qualified enlisted instructors SSN 70620.

b. Funds. Should QSA Project 521 (training) funds in excess of those currently available to your headquarters be required for conduct of the course, request may be submitted to this Office. In this connection attention is invited to letter this Office, QMGPN 123 (Fort Lee, Va.), 6 January 1951, subject, "QSA Project 521 (Training) Funds, Fort Lee, Virginia, FY 1951."

c. Equipment. Supply action on the Fort Lee requisitions is being expedited.

3. OCAFF has advised this Office that the Parachute Rigger and Repair Course at the Infantry School will provide for 75 of the training requirement of 212 in MOS 0620 for FY 1951, which requirement was furnished the Quartermaster School by letter, OCAFF, ATTNG-12 352/740, dated 15 December 1950, subject, "Requirements for Officer Schooling, January through June 1951, and Revised Requirements for Enlisted Specialist Training August 1950 through June 1951 (RCS ATTNG-EX-(OT)-28)." The following schedule designed to train the balance of 137 at the Quartermaster School is proposed:

| Class No. | Capacity | Reporting Date | Closing Date |
|---|---|---|---|
| 1 | 50 | 25 Apr 51 | 24 Jul 51 |
| 2 | 90 | 31 May 51 | 25 Aug 51 |

It is desired that this Office be advised at the earliest practicable date whether this schedule may be adopted. If not, an alternate schedule will be submitted for approval as soon as possible.

4. It is desired that your headquarters complete action pertaining to funds, equipment and facilities required for conduct of this course. Requests will be submitted in accordance with letter, OCAFF, ATTNG-12 352/740, dated 15 December 1950, subject, "Requirements for Officer Schooling, January through June 1951, and Revised Requirements for Enlisted Specialist Training August 1950 through June 1951 (RCS ATTNG-EX-(OT)-28)," and 1st Ind thereto dated 21 December 1950. Information copies of correspondence to addresses other than the Quartermaster General will be submitted

in duplicate to this Office, attention, Chief, Personnel and Training Division.

5. It is further desired that the program of instruction for subject course be furnished this Office for approval at the earliest practicable date.

6. Inclosed for information is a copy of correspondence from The Adjutant General to the Chief of Army Field Forces relative establishment of subject course (Inclosure No. 3). This Office concurs in the comments of The Adjutant General with exception of the recommended standard score of 80 or higher in Aptitude Area VII. The program of instruction to be submitted by this Office to the Chief of Army Field Forces for Approval will request that the score be established at 100.

BY COMMAND OF MAJOR GENERAL FELDMAN:

3 Incls:
1. Ltr OQMG 30 Dec 50, QMGPN 352.01 w/2 Incls and 1st Ind (cy)
2. Ltr OQMG 9 Jan 51 QMGPF 320 (cy)
3. Ltr AGPP-M 352.11 (2 Jan 51) G-1, dtd 8 Feb 51 (cy)

C. G. CALLOWAY
C. G. Calloway
Colonel, QMC
Personnel and Training Division

QMFLSC 352.11 1st Ind

HEADQUARTERS, Fort Lee, Virginia, 19 February 1951

TO: Commandant, The Quartermaster School, Fort Lee, Virginia

For information and necessary action.

BY ORDER OF COLONEL HENRY:

3 Incls.
n/c

FREDERICK A. STURM
Lt. Col. AGC
Adjutant General

## APPENDIX D

## ELEMENTS OF THE QUARTERMASTER AIRBORNE PUBLICATIONS PROGRAM

1. Determining the REQUIREMENT...

   ...is the responsibility of the Office of the Quartermaster General. The requirement may be determined by...

   - ...the need to replace Air Force Technical Orders with publications available through Army supply channels.
   - ...a request from a using unit for instructions covering an item of Quartermaster equipment.
   - ...a report from Army Field Forces Board No. 1 recommending standardization of certain techniques or equipment.
   - ...an analysis of the training program of the Airborne Group, the Quartermaster School.
   - ...the standardization, procurement, or distribution of new items of airborne equipment.

2. Issuing the DIRECTIVE...

   ...is the responsibility of the Personnel and Training Division, OQMG. After the need for a certain publication has been determined, OQMG issues a directive to the Quartermaster Technical Training Service, Fort Lee, Va., requesting preparation of a proposed draft of a technical bulletin.

3. Conducting the RESEARCH...

   ...is the responsibility of the individual writer of the Airborne Branch, Writing and Research Division, QMTTS. The information that is incorporated into the draft manuscript may be obtained from...

...the various divisions of OQMG.
...interviews with experienced Airborne personnel.
...correspondence with development and testing agencies, including test reports from AFF Bd #1.
...field trips to Airborne units, QM depots, Infantry School, QM School, or AFF Bd #1.
...previous publications of Army and Air Force.

4. Preparing the MANUSCRIPT...

...is the responsibility of the Quartermaster Technical Training Service. The preparation requires the specialized and professional skills of...

...writers, editor, and technical advisor of the Airborne Branch, Writing and Research Division, QMTTS.
...photographers, draftsmen, and photo retouchers of the Graphic Division, QMTTS
...research and reviews officers of the Review Division, QMTTS.
...typists and proofreaders of the Manuscript Section, QMTTS.

5. Coordinating REVIEW of the manuscript...

...is the responsibility of the Personnel and Training Division, OQMG. This coordination requires the concurrance of all interested divisions of OQMG, including...

...Personnel and Training Division.
...Field Service Division.
...Distribution Division.
...Research and Development Division.

...includes sending review copies, with requests for comments, to...

...Wright Air Development Center.
...Joint Airborne Troop Board.
...Army Field Forces Board No. 1.
...Infantry School.
...Quartermaster School.

...requires a conference of representatives from all interested divisions of OQMG and from the Airborne Branch, QMTTS. Each comment from each reviewing agency is discussed, and appropriate changes are made in the draft manuscript.

6. Processing of the technical bulletin for PUBLICATION...

...is the responsibility of TAG, who receives the final draft from OQMG and forwards it to the Government Prin ing Office.

AIRBORNE BRANCH, QMTTS

Research during the preparation of a technical bulletin requires close liaison with airborne units, with Quartermaster depots, with development and testing agencies. As a member of one of those organizations, you may be contacted by a member of the QMTTS staff during this research.

QUARTERMASTER TECHNICAL TRAINING SERVICE

Mr. John A. Spencer, Chief

RESEARCH AND WRITING DIVISION

Mr. F. S. Buckwalter, Chief

AIRBORNE BRANCH

Mr. John S. Barker, Chief
WOJG Edward Carlin, Technical Advisor
Lt. Gordon Bennett, Publications Writer
Mr. W. P. McGovern, Publications Writer
Mr. Thomas Ansbro, Publications Writer
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THE TECHNICAL BULLETIN PROGRAM

The block of 100 numbers in the 10-500 series has been designated for Quartermaster airborne publicatins. Of these, the first 30 numbers have been reserved for technical bulletins covering parachutes: the second 30, for aerial delivery containers; the third 30, for heavy-drop techniques; and the remaining 10, for miscellaneous subjects.

| | | |
|---|---|---|
| TB 10-501-1 | T-7A Troop Parachute Packing Procedures | In preparation |
| TB 10-502-1 | T-10 Troop Parachute Packing Procedures | In preparation |
| TB 10-503-1 | G-1 and G-1A Cargo Parachute Packing Procedures | Published |
| TB 10-504-1 | Packing the G-11A and G-11 Cargo Parachutes | Published |
| TB 10-505-1 | G-12 Cargo Parachute Packing Procedures | In preparation |
| TB 10-506-1 | G-13 Cargo Parachute Packing Procedures | Published |
| TB 10-507-1 | Extraction Parachute Packing Procedures | Published |
| TB 10-508-1 | Back-Type Personnel Parachute Packing Procedures | In preparation |
| TB 10-509-1 | Seat-Type Personnel Parachute Packing Procedures | Proposed |
| TB 10-510-1 | Pilot Parachute Packing Procedures | Published |
| TB 10-514-1 | XB-5 Personnel Parachute Packing Procedures | Proposed |
| TM 10-530 | Principles of Packing and Rigging Aerial Delivery Containers | Published |
| TM 10-531 | The C-119 Monorail System, C-Beam and I-Beam | Published |
| TM 10-533 | Aerial Delivery of A-22 Containers | Published |
| TB 10-560-1 | Heavy-Drop Techniques: Rigging the 105-mm Howitzer for Aerial Delivery | Published |
| TB 10-561-1 | Heavy-Drop Techniques: Rigging the Multiple .50 Caliber Machine Gun Trailer Mount M55 for Aerial Delivery | Published |
| TB 10-562-1 | Heavy-Drop Techniques: Rigging the 40-mm Gun for Aerial Delivery | Published |
| TB 10-563-1 | Heavy-Drop Techniques: Rigging the 6,000-Pound Load-Bearing Platform for Aerial Delivery | Published |
| TB 10-564-1 | Heavy-Drop Techniques: Rigging the Truck, 1/4-ton, 4x4, Utility, M38, for aerial Delivery | Published |
| TB 10-565-1 | Heavy-Drop Techniques: Rigging the Truck, 3/4-Ton, 4x4, Cargo, M37, W/Wn, for Aerial Delivery | Published |
| TB 10-567-1 | Heavy-Drop Techniques: Rigging the M29C Cargo Carrier for Aerial Delivery | At printers |
| TB 10-568-1 | Heavy-Drop Techniques: Rigging the 90-mm Gun for Aerial Delivery | Proposed |
| TB 10-569-1 | Heavy-Drop Techniques: Aircraft Preparation, Loading, and Ejection Procedures | Published |
| TB 10-570-1 | Heavy-Drop Techniques: Rigging the Truck, 2½-Ton, 6x6, Cargo, M34, for Aerial Delivery | In preparation |

| | | |
|---|---|---|
| TB 10-571-1 | Heavy-Drop Techniques: Rigging the D-4 Bulldozer for Aerial Delivery | Proposed |
| TB 10-572-1 | Heavy-Drop Techniques: 3,500-Pound Platform | Proposed |
| TB 10-573-1 | Heavy-Drop Techniques: 7,000-Pound Platform | Proposed |
| TB 10-574-1 | Heavy-Drop Techniques: Parachute Release Assemblies | At printer |
| TM 10-591 | Sewing Machines for Repair of Parachutes and Allied Items | At printer |
| TB 10-592-1 | Repair of Aerial Delivery Containers: A-7A, A-21, A-22 | In preparation |
| TB 10-592-2 | Repair of Aerial Delivery Containers: Individual Weapons Case and Adjustable Equipment Bag | In preparation |
| TB 10-593-1 | Repair of Aerial Delivery Platforms: 15- and 11-Foot (Wood) | In preparation |
| TB 10-593-2 | Repair of Aerial Delivery Platforms: 6,000-Pound Load-Bearing | In preparation |
| TB 10-593-3 | Repair of Aerial Delivery Platforms: 18- and 22-Foot (Wood) | Proposed |
| TB 10-594-1 | Maintenance of the T-7A Troop Parachute | In preparation |
| TB 10-594-2 | Maintenance of the T-10 Troop Parachute | Proposed |
| TB 10-594-3 | Maintenance of the Back-Type Personnel Parachute | In preparation |
| TB 10-594-4 | Maintenance of the Seat-Type Personnel Parachute | Proposed |
| TB 10-595-1 | Maintenance of the G-1 Cargo Parachute | In preparation |
| TB 10-595-2 | Maintenance of the G-11 Cargo Parachute | In preparation |
| TB 10-595-3 | Maintenance of the G-12 Cargo Parachute | Proposed |
| TB 10-595-4 | Maintenance of the G-13 Cargo Parachute | In preparation |
| TB 10-595-5 | Maintenance of the Pilot and Extraction Parachutes | Proposed |
| TB 10-596-1 | Storage and Shipment of Parachutes | At printer |
| TB 10-597-1 | Repair of Aerial Delivery Kits | In preparation |
| TB 10-598-1 | Repair of Aerial Unloading and Release Kits | In preparation |

## APPENDIX E

## LIST OF ABBREVIATIONS

| | |
|---|---|
| AAF | Army Air Forces |
| Abn | Airborne |
| Abn Sup Instr Gp | Airborne Supply Instructor Group |
| AC of S | Assistant Chief of Staff |
| AD | Aerial Delivery |
| Adm & Sup Off | Administrative and Supply Officer |
| AF | Air Force |
| AFB | Air Force Base |
| AFF | Army Field Forces |
| AG School | Adjutant General's School |
| AR | Army Regulation |
| Asst | Assistant |
| Bldg | Building |
| Br | Branch |
| Bul | Bulletin |
| Capt | Captain |
| CG | Commanding General |
| Cmdt | Commandant |
| Cmdr | Commander |
| Col | Colonel |
| COT | Commander of Troops |
| C/S | Chief of Staff |
| DA | Department of the Army |
| DF | Disposition Form |
| Dir of Serv & Sup | Director of Services and Supply |
| Div QM | Division Quartermaster |
| DOD | Department of Defense |
| FB | Film Bulletin |
| G-1 | Assistant Chief of Staff, G-1, (Personnel) |
| G-3 | Assistant Chief of Staff, G-3, (Training and Operations) |

| | |
|---|---|
| G-4 | Assistant Chief of Staff, G-4, (Logistics) |
| GO | General Orders |
| GP | Group |
| GSC | General Staff Corps |
| GSUSA | General Staff, U. S. Army |
| Hq | Headquarters |
| JAAFAR | Joint Army—Air Force Adjustment Regulations |
| Lt | Lieutenant |
| Lt Col | Lieutenant Colonel |
| Ltr | Letter |
| Maint | Maintenance |
| Maj | Major |
| Maj Gen | Major General |
| Memo | Memorandum |
| MHE | Materials Handling Equipment |
| Mil Equip Bd | Military Equipment Board |
| Mil Plng Div | Military Planning Division |
| MOS | Military Occupational Specialty |
| M/Sgt | Master Sergeant |
| NG | National Guard |
| OCAFF | Office, Chief Army Field Forces |
| OIC | Officer in Charge |
| OQMG | Office of the Quartermaster General |
| ORC | Organized Reserve Corps |
| P&T Div | Personnel and Training Division |
| POI | Program of Instruction |
| PPM & AD | Parachute Packing, Maintenance, and Aerial Delivery |
| QM Abn Tech Crse | Quartermaster Airborne Technical Course |
| QM Bd | Quartermaster Board |
| QMC | Quartermaster Corps |
| QMRTC | Quartermaster Replacement Training Center |
| QMS | Quartermaster School |
| QMTTS | Quartermaster Technical Training Service |
| Rpt | Report |
| RQMD | Richmond Quartermaster Depot |
| Sch Sec | School Section |
| Sec | Section |
| SFC | Sergeant First Class |
| SOP | Standing Operating Procedure |
| SR | Special Regulation |
| Sup | Supply |
| T/A | Table of Allowance |
| TAG | The Adjutant General |
| TB | Technical Bulletin |
| TDY | Temporary Duty |
| Telecon | Telephone Conversation |
| TM | Technical Manual |
| TO&E | Table of Organization and Equipment |

| | |
|---|---|
| TQMG | The Quartermaster General |
| TWX | Teletype Message |
| USMA | United States Military Academy |
| USMC | United Stated Marine Corps |
| VOCO | Verbal Orders of Commanding Officer |
| WD | War Department |
| WOJG | Warrant Officer Junior Grade |

## APPENDIX F

### ADDRESS OF MAJOR GENERAL HERMAN FELDMAN, AT THE OPENING OF THE AIRBORNE COURSES OF INSTRUCTION, FORT LEE, VIRGINIA, 21 MAY 1951

Our meeting here today means more than the launching of a new course at the Quartermaster School. It marks another step in the implementation and realization of one of the most significant events in the history of the Quartermaster Corps.

Because it is a milestone in the story of our Corps, I think it would be well to review the situation.

As most of you know, in March of last year a Department of the Army Ad Hoc Committee, composed of representatives of my Office together with those of the General Staff and of all Army airborne units in the field, came up with a recommended program for Quartermaster Corps support of airborne operations.

In arriving at its recommendations, this committee took into account testimony of the most distinguished experts in the field of airborne operations, including the outstanding leaders in developing the science during and after World War II.

And now, approximately one year later, I take pride in recounting our implementation of the Committee's recommendations.

It was recommended, for instance, that the Army Quartermaster Corps should do its own maintenance instead of relying on the Air Force. This has been done and we are placing at the service of the Army effort a half-million-dollar Army airborne maintenance shop at our Jeffersonville Quartermaster Depot.

We were advised that the Quartermaster Corps should store and issue parachutes, heavy drop kits, and other vital equipment required by airborne

units. We are doing it now and I invite you to visit the Air Section of the Richmond Quartermaster Depot where you can see first hand just what we are doing with respect to the storage of air items of equipment.

We were informed that our active Airborne Divisions faced shortages of parachutes and related airborne equipment. Today, almost $200,000,000 worth of these items is under contract. Deliveries have already started and will shortly be accelerated to $1,000,000 a day.

It was suggested that there was need for a new type of T/O&E unit to back up our ground troops with aerial delivery support. Since September, the first Quartermaster Aerial Supply Company in Korea has air-dropped over 8,000 tons to our troops engaged in combat. The 557th Aerial Supply Company, the second of such a type unit, has been activated and is undergoing training at Fort Bragg.

It was recommended that a depot maintenance unit was required to back up the parachute maintenance effort of Airborne Divisions. Such a unit is now being established and will be available for your inspection within a few weeks.

The value of career opportunity in the Airborne supply field was stressed. Quartermaster personnel planners have now developed an enlisted career ladder in this field, as well as a career pattern for officers.

The expansion of training in supply operations and maintenance of airborne equipment was strongly recommended. Today, we officially commemorate the accomplishment of that recommendation in the establishment of this post-graduate school in parachute packing, maintenance, and aerial delivery.

The committee pointed out the dynamic characteristic of airborne equipment design and operation and we were cautioned against adopting a so-called inflexible and static policy in the discharge of our airborne responsibilities. We heeded this advice and have established an airborne staff within my Office which is specifically charged with the development of Quartermaster Air Plans and Policies and to serve as the watch-dog of all phases of air operations to insure accomplishment in spirit as well as letter.

Lastly, the committee stressed that the elite status and lofty performance standards of Army Airborne elements must continue to be fostered and preserved within the Quartermaster framework. While this, in fact, was but another way of stating a long existing Quartermaster policy, nonetheless, we have re-assessed our personnel policies and procedures in this regard and steps have been taken to man all Quartermaster units engaged in air activity with parachute-qualified personnel. Moreover, officers and men teaching or undergoing airborne training at the Quartermaster School will maintain the physical training standards as well as

the physical training programs of the jump school at Fort Benning. Failure to comply means loss of parachute pay status.

Airborne troops in training and permanent party at Fort Lee will have their own Airborne School Battalion and are on active jump status.

As in the past, we will continue to lean most heavily on the guidance and advice of Airborne experts--the Airborne Divisions, the Airborne Department of the Infantry School, and other agencies, units, and activities with long and brilliant performance records.

The Airborne people throughout the Army have given most generously of their time, knowledge, and personnel. I am now seeking their advice as to where we should go from here.

Should we not augment our Airborne School operations so as to supply the Army with expert aerial logisticians, capable of planning, organizing, and operating aerial delivery logistics on a theater or tactical Army level?

Should we not plan to stockpile sufficient critical and long-lead time airborne equipment so as to guarantee our capability for meeting mobilization requirements?

Is it not important that we plan to provide direct tactical support in combat by developing a capability for the placement of weapons at hitherto unattainable terrain locations?

Is there not an important role in the use of air drop to facilitate river crossings and amphibious operations?

How about the direct support of Armor by developing greater staying power through the air drop of petroleum and ammunition?

What about the Arctic? Are our Airborne capabilities insured of success in those regions?

What can we do drastically to reduce the rate of equipment replacement in combat? If we are fully to develop and exploit our Airborne possibilities, then we <u>must</u> -- <u>must</u> -- recover for reuse a most substantial proportion of our critical, expensive, and long lead-time air equipment items.

Is there a need for more accurate supply drop technique? For example, I recall Captain Cecil W. Hospelhorn's experience in FECOM where, in order to drop the sections on an M-2 Treadway Bridge so as to enable the combat Marines to make good their withdrawal, it was necessary, due to drop zone limitations, to shift the cargo after it became airborne so as to insure greater accuracy in the air drop. Can this problem

be solved by the use of a "drop sight" that can be used by the dropmaster in the same fashion as a bomb sight by the aerial bombardier?

Can we attain advantage by high drop, 10,000 feet and above, for parachutes and equipment, assuming a means of attaining drop zone accuracy were assured?

What are the implications of the ever-expanding airborne capability as we steadily advance on a wide front in the technology of warfare?

In the light of these questions, what services, what supplies do the Airborne people require of the Quartermaster? The answer to this question, of course, is the mission of the users.

Today, tommorrow, and always, it is our mission to respond with deeds. To this end, we not only dedicate the opening of this most important phase in our Quartermaster School system, but all future Quartermaster Airborne activities. Our air program stands or falls in accomplishing the mission imposed by this dedication.

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| | |
|---|---|
| 060 | Graphs, Charts, Maps, and Tables. |
| 062.2 | Photography, photographs, and moving pictures. |
| 200.6 | Awards, Badges, Decorations, and Citations - Officers and Enlisted Men. |
| 210.31 | Assignment of Officers. |
| 240 | Pay and Allowances. |
| 311.21A | Incoming TWX's. |
| 311.3 | Telephone Conversations. |
| 319.1 | Report of Trips - Travel. |
| 320 | Organization of the Army. |
| 337 | Conferences - Military. |
| 352.01 | Establishment of Course of Instruction. |
| 352.11 | Course of Instruction - Officers. |
| 352.12 | Examinations and Tests. |
| 352.121K | Parachute Packing, Maintenance, and Aerial Delivery Course. |
| 352.122 | QM Airborne Technical Course. |
| 352.122A | Aerial Delivery Course. |
| 352.122B | QM Airborne Equipment Maintenance. |
| 353.02B | Visitors to QM School from Installations Outside Fort Lee. |
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| 400.312 | Requisition for Supplies. |
| 452 | Aircraft and Aeronautical Supplies and Equipment. |
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