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Incl #2

Ops. in Holland - In

(1st AB Div rpt on

MARKET)

AIR INVASION OF HOLLAND

IX TROOP CARRIER COMMAND REPORT ON OPERATION MARKET

BY AUTH: C.G. IX T.C.C.
DATE: 1-2-45
SIG: Gen. A. B. B. B.
RANK: Capt. A.C.
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I N T R O D U C T I O N

1. MARKET was the code name given to the Air Invasion of HOLLAND by the First Allied Airborne Army. Operation MARKET was the seventh major airborne operation participated in by Troop Carrier Forces in the Mediterranean Theater of Operations and the European Theater of Operations under the command of Major General PAUL L. WILLIAMS. Operation MARKET offered the first privilege for IX Troop Carrier Command to participate in actual combat as the Air Task Force of the First Allied Airborne Army under the command of Lieutenant General LEWIS H. BREHETON. For Operation MARKET, General BREHETON designated Major General PAUL L. WILLIAMS as the Air Task Force Commander, placing under him all units of IX Troop Carrier Command, 38 and 46 Groups (RAF), together with bomber aircraft of Eighth Air Force which were utilized for resupply missions. Lieutenant General F. A. M. BROWNING was designated Commander of the Airborne Forces involved.

2. Operation MARKET represents the largest, to date, of all troop carrier employment in this war in numbers of troops, tonnage of supplies, equipment, and overall air effort in one operation. It was also the most hazardous from point of view of enemy resistance and enemy capabilities, both air and ground. The courage, determination and high sense of duty of Troop Carrier Combat Crews resulted in the highest praise from airborne commanders and others who participated. Although ultimate success was not achieved as planned due to the inability of units of the British 2nd Army to contact the British 1st Airborne Division at ARNHEM, the entire troop carrier airborne effort was, without a doubt, a staggering blow to the enemy and a severe threat to the industrial area of the RUHR. Operation MARKET was highly successful from a troop carrier point of view. The Serial delivery of troops and supplies was executed with superior efficiency. Loss of aircraft and personnel rested at 2.5% for the total number of sorties flown. Reclamation of gliders from the combat zone was far higher than in any previous operation. Evacuation of glider pilots brought out a number of new possibilities as to their employment in future tasks. The air work of IX Troop Carrier Command remained at a high level, the formations were good, the timing of intervals, although precise and close, produced a rapid concentration of airborne troops and immediate saturation of enemy held positions on the ground.

3. Again various new ideas for effective employment of Troop Carrier Forces have arisen from experiences gained in an operation. The employment of Troop Carrier Forces during daylight hours emerged as a triumphant success after having been previously condemned because feared effectiveness of enemy air and ground action during daylight hours. Large numbers of supporting aircraft provided superior escort cover and protection from enemy ground installations. These supporting forces deserve much of the credit for the success of Troop Carrier operations and are viewed with great admiration by the combat crews of the IX Troop Carrier Command.

4. It is the intention of this command to expand its capabilities along both the tactical and non-tactical lines by acquiring C-109 type aircraft in order to assist in the delivery of gasoline from the United Kingdom to the Continent and at the same time, provide opportunity for Troop Carrier crews to

to check out on four-engine aircraft. Two hundred (200) C-46 type aircraft have been allocated to the IX Troop Carrier Command and will be tactically employed and the desired proficiency of combat crews attained.

5. Tests of the CG-13 gliders are being conducted, and it is hoped these will soon be available for tactical employment.

6. Steady progress and continuous study is being made for employment of various types of radar and radio equipment for use by pathfinder units and combat crews.

7. It should be remembered that the experience gained from Operation MARKET will not necessarily form the pattern for future troop carrier tactical operations as opportunity tasks may require different techniques. However, it was extremely gratifying to see the Allied Airborne Army reach out across Germany held HOLLAND and prove its great worth. It has definitely cemented Troop Carrier and Airborne Troops relations as an Airborne Army and will help to undertake future tasks with the confidence of experience.

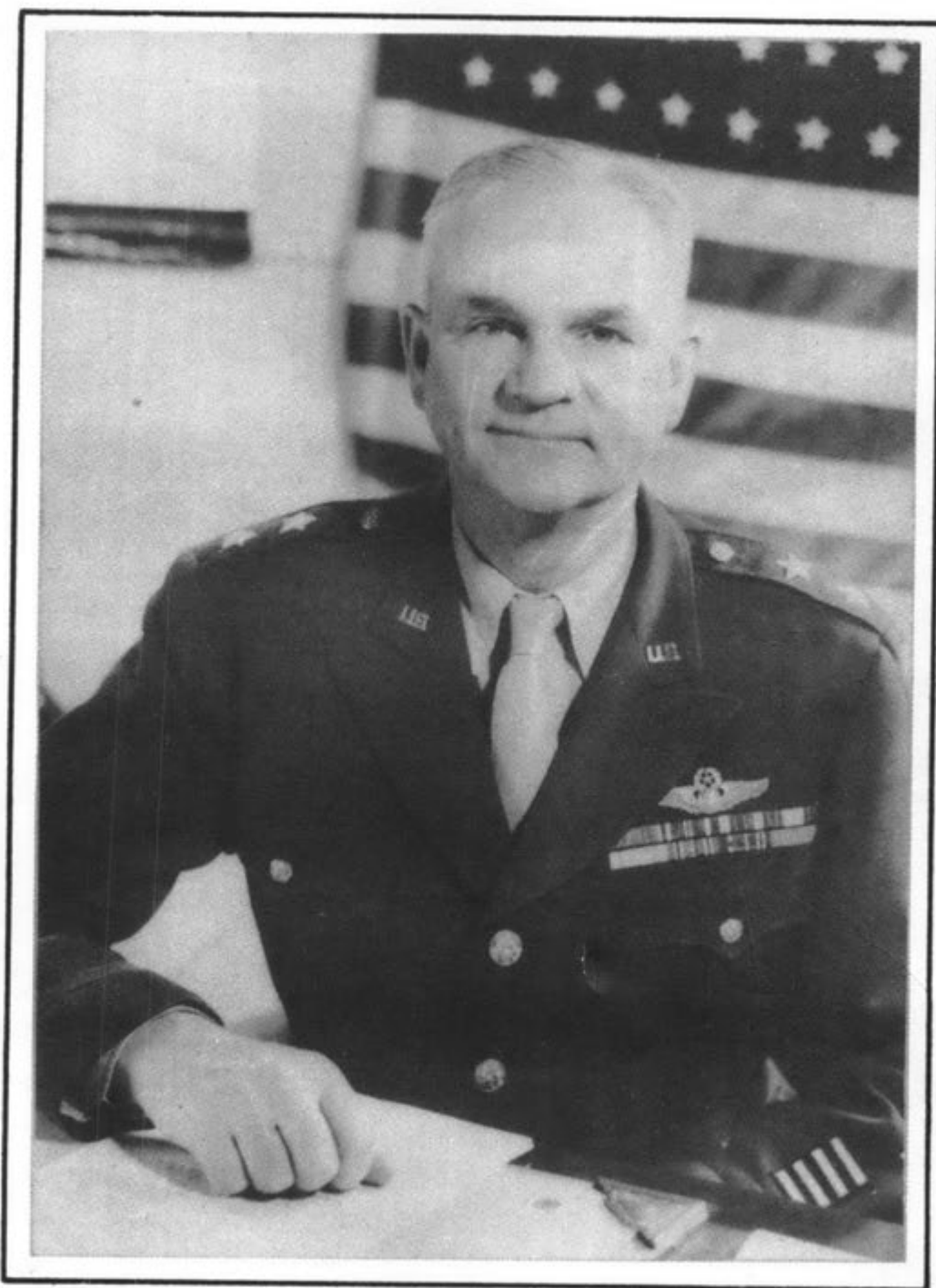
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Major General PAUL L. WILLIAMS
Commanding General, IX Troop Carrier Command

I. GENERAL

1. Having returned from the Mediterranean Theater after completion of the invasion of SOUTHERN FRANCE, IX Troop Carrier Command was immediately alerted for a possible airborne mission. The Troop Carrier Tactical Plan for Operation MARKET was an outgrowth of previous completed plans for operations not put into execution because of the rapid movement of the Allied Ground Armies. Although very little time was available to plan and stage Operation MARKET, close and speedy coordination of Troop Carrier and Airborne agencies placed all units in complete readiness for the operation as well as for thorough briefing of all combat crews and troops.

2. Upon receipt of a directive from First Allied Airborne Army, showing the general plan of all forces in the operation, the mission of the Troop Carrier Force, and the designation of Airborne Troops plus their task, the Troop Carrier Commander and his staff took immediate action to complete plans.

3. Mission

a. It was the intention of the Commander-in-Chief, 21 Army Group, to advance North across the MAAS, WAAL and NEDER RIJN, form a strong bridgehead North of ARNHEM and continue operations North into HOLLAND and East against the REICH. The main axis of the advance was EINDHOVEN-GRAVE-NIJMEGEN-ARNHEM, which was allotted to XXX CORPS.

b. Airborne Corps were to capture and hold crossings over the canals and rivers on Second Army's main axis of advance, from about EINDHOVEN to include ARNHEM.

c. IX Troop Carrier Command, supported by 38 Group, 46 Group (RAF) and Eighth Air Force, transported parachute and glider troops and equipment, together with effecting aerial resupply to British and American Forces.

4. Order of Battle

a. Ground

Hq, British Airborne Corps
1st British Airborne Division
52nd (L) Division (Airportable)
1st Polish Parachute Brigade
2nd Airlanding Light AA Battery
PHANTOM detachments on scale of one per Corps Hq & Division
878th US Airborne Aviation Engineer Battalion
82nd US Airborne Division
101st US Airborne Division
Liaison Missions provided by SPHQ
Civil Affairs Staff
Detachment Netherlands Army Commandos
Such additional units as are provided by 2nd British Army
to assist after the ground forces have joined up.

b. Air

Headquarters, IX Troop Carrier

Command

Rear Hq: GRANTHAM

Adv. Hq: EASTCOTE

<u>TACTICAL UNITS</u>	<u>ASSIGNED UNITS</u>	<u>ATTACHED UNITS</u>	<u>ALLOCATED UNITS</u>
Hq & Hq Sq IX TCC Grantham	203 Med Disp Unit 388 Sig Co Avn 1224 MP Co. Avn	Det T, 21 Wea Sq Det T, 40 Mob Com Sq Det B, 32nd SCU	435 QM Plat, 29 ADG

Headquarters, 50th TC Wing			
Rear Hq: EXETER			
Adv. Hq: BALDERTON			
Hq & Hq Sq 50th TC Wg Hq, 439th TC Group Rear Hq: UPOTTERY Adv. Hq: BALDERTON 91st TC Sq 92nd TC Sq 93rd TC Sq 94th TC Sq	336 Sig Co TC Wg 2052nd Engr F/F Plat 1258th MP Co. Less "A" 315th Stn Comp Sq Det A	Det DD, 21 Wea Sq Det I, 21 Wea Sq	49th Serv Gp Hq (T-A) 44th Serv Sq 1471 Ord MM Co 1070 Sig Co Less "A" 1079 QM Co Less "A" 2246 QM Trk Co Less "A"
Hq, 440th TC Group Rear Hq: EXETER (Gr.Ech) Adv. Hq: FULBECK (Air Ech) 95th TC Sq 96th TC Sq 97th TC Sq 98th TC Sq	2139 Engr F/F Plat 1198 MP Co. Less "A"	Det ZW, 21 Wea Sq	49th Serv Gp (T-B) 64th Serv Sq 1472 Ord MM Co 1070 Sig Co, Det A 1079 QM Co, Det A 2246 QM Trk Co, Det A

TACTICAL UNITS

Hq, 551st TC Group
Rear Hq: MERRYFIELD
Adv. Hq: LANGAR
99th TC Sq
100th TC Sq
301st TC Sq
302nd TC Sq

ASSIGNED UNITS

2013 Engr F/F Plat
1258 MP Co, Det A
315th Stn Comp Sq Less A

ATTACHED UNITS

Det H, 21 Wea Sq

ALLOCATED UNITS

100th Serv Gp Hq (T-A)
67th Serv Sq
1468 Ord MM Co
1061 Sig Co Less A
1223 QM Co, Less A
2245 QM Trk Co, Less A

Headquarters, 52nd TC Wing
Rear Hq: COTTESMORE

Hq & Hq Sq, 52nd TC Wing

335 Sig Co TC Wing

Det NN, 21 Wea Sq

Hq, 316th TC Group
36th TC Sq
37th TC Sq
44th TC Sq
45th TC Sq
818th MAETS

2066 Engr F/F Plat
1185 MP Co, Det A
65th Stn Comp Sq

Det ZX, 21 Wea Sq

317th Serv Gp (T-A)
1st Serv Sq. (Prov)
1461 Ord MM Co
1069 QM Co, Less B
2248 QM Trk Co, Less A
1100 Sig Co, Less A

Hq, 61st TC Group
Hq: BARKSTON HEATH
14th TC Sq
15th TC Sq
53rd TC Sq
54th TC Sq
817th MAETS

2051 Engr F/F Plat
1259 MP Co, Less A
313th Stn Comp Sq

Det ZZ, 21 Wea Sq

78th Serv Gp (T-A)
302nd Serv Sq
1473 Ord MM Co
1038 Sig Co
1093 QM Co, Less A
2247 QM Trk Co, Less A

Hq, 313th TC Group
Hq: FOLKINGHAM
29th TC Sq
47th TC Sq
48th TC Sq
49th TC Sq

2014 Engr F/F Plat
1259 MP Co, Det A
81st Stn Comp Sq

Det ZE, 21 Wea Sq

82nd Serv Gp (T-A)
383rd Serv Sq
1477 Ord MM Co
1040 Sig Co, Less A
1222 QM Co, Less A
2244 QM Trk Co, Less A

TACTICAL UNITS

Hq, 314th TC Group
Hq: SALTBY
32nd TC Sq
50th TC Sq
61st TC Sq
62nd TC Sq

Hq, 315th TC Group
Hq: SPANHOE
34th TC Sq
43rd TC Sq
309th TC Sq
310th TC Sq

ASSIGNED UNITS

2143 Engr F/F Plat
1120 MP Co, Det A
320th Stn Comp Sq

2053 Engr F/F Plat
1185 MP Co, Less A
309th Stn Comp Sq

ATTACHED UNITS

Det XX, 21 Wea Sq

Det YY, 21 Wea Sq

ALLOCATED UNITS

317th Serv Gp (T-B)
357th Serv Sq
1462 Ord MM Co
1100 Sig Co, Det A
1069 QM Co, Det B

78th Serv Gp (T-B)
95th Serv Sq
1474 Ord. MM Co
1038 Sig Co, Det A
2247 QM Trk Co, Det A
1093 QM Co, Det A

Headquarters, 53rd TC Wing
Hq: GREENHAM COMMON

Hq & Hq Sq, 53rd TC Wg

Hq, 438th TC Group
Hq: GREENHAM COMMON
87th TC Sq
88th TC Sq
89th TC Sq
90th TC Sq
811th MAETS

337 Sig Co, TC Wing

2049 Engr F/F Plat
1183 MP Co, Less A

Det ZG, 21 Wea Sq

Det ZA, 21 Wea Sq

82nd Serv Gp (T-B)
97th Serv Sq
1478 Ord MM Co
1040 Sig Co, Det A
1222 QM Co, Det A
2244 QM Trk Co, Det A
2nd QM Depot Sup Bn (Prov)
490 QM Depot Sup Co

Hq, 434th TC Group
Hq: ALDERMASTON
71st TC Sq
72nd TC Sq
73rd TC Sq
74th TC Sq
810 MAETS

2142 Engr F/F Plat
1229 MP Co, Det A
97th Stn Comp Sq

Det ZB, 21 Wea Sq

318 Serv Gp (T-A)
458th Serv Sq
1465 Ord MM Co
1075 Sig Co, Less B
1068 QM Co, Less A
2249 QM Trk Co, Less A
1st Air Cargo Resup Det

TACTICAL UNITS

Hq. 435th TC Group
Hq: WELFORD
75th TC Sq
76th TC Sq
77th TC Sq
78th TC Sq
815th MAETS

Hq. 436th TC Group
Hq: MEMBURY
79th TC Sq
80th TC Sq
81st TC Sq
82nd TC Sq

Hq. 437th TC Group
Hq: RAMSBURY
83rd TC Sq
84th TC Sq
85th TC Sq
86th TC Sq
814th MAETS

Hq. 442nd TC Group
Rear Hq: WESTON ZOYLAND
Adv. Hq: CHILBOLTON
303rd TC Sq
304th TC Sq
305th TC Sq
306th TC Sq

ASSIGNED UNITS

2046 Engr F/F Plat
1120 MP Co, Less A
21st Stn Comp Sq

2141 Engr F/F Plat
1183 MP Co, Det A
305th Stn Comp Sq

2054 Engr F/F Plat
1229 MP Co, Less A
69th Stn Comp Sq

2140 Engr F/F Plat
1198 MP Co, Det A

ATTACHED UNITS

Det N, 21 Wea Sq

Det ZC, 21 Wea Sq

Det CG, 21 Wea Sq

Det G, 21 Wea Sq

ALLOCATED UNITS

10th Serv Gp (T-A)
13th Serv Sq
1463 Ord MM Co
1099 Sig Co, Less A
1063 QM Co, Less A
2243 QM Trk Co, Less A
3rd Air Cargo Resup Sq,
Less A

318th Serv Gp (T-B)
459th Serv Sq
1466 Ord MM Co
1075 Sig Co, Det B
1068 QM Co, Det A
2249 QM Trk Co, Det A
2nd Air Cargo Resup Det

10th Serv Gp (T-B)
337th Serv Sq
1455 Ord MM Co
1099 Sig Co, Det A
1066 QM Co, Det A
2243 QM Trk Co, Det A
3rd Air Cargo Resup, Det A

100th Serv Gp (T-B)
330th Serv Sq
1470 Ord MM Co
1061 Sig Co, Det A
1223 QM Co, Det A
2245 QM Trk Co, Det A

IX Troop Carrier Pathfinder Group (Prov)
Hq: CHALGROVE

<u>TACTICAL UNITS</u>	<u>ASSIGNED UNITS</u>	<u>ATTACHED UNITS</u>	<u>ALLOCATED UNITS</u>
Hq, IX TC P/F Gp (Prov)	2011 Engr F/F Plat	Det WW, 21 Wea Sq	204th Med Disp Unit
Hq: CHALGROVE	1183 MP Co, Det B		37th Mob R & R Sq
1st P/F Sq (Prov)	62nd Stn Comp Sq		
2nd P/F Sq (Prov)			
3rd P/F Sq (Prov)			
4th P/F Sq (Prov)			

IX Troop Carrier Service Wing (Prov)
Hq: NORTH WITHAM

33rd Air Depot Group
33rd Depot Repair Sq
33rd Depot Supply Sq
876 Sig Depot Co
1911 Ord MM Co
45th QM Supply Plat
433 QM Plat ADG
2207 QM Trk Co
1360 MP Co
29th Air Depot Group
16th Depot Repair Sq
96th Depot Supply Sq
1451 Ord MM Co
918 Sig Repair Co
1254 QM Trk Co
321st Stn Comp Sq

CROOKHAM COMMON

33 Mob R & R Sq
26 Mob R & R Sq

IX Troop Carrier Service Wing (Prov)
CHAFMY DOWN

TACTICAL UNITS

ASSIGNED UNITS

ATTACHED UNITS

ALLOCATED UNITS

308th Stn Comp Sq
202nd Med Disp Unit

CHILBOLTON

67th Stn Comp Sq
205th Med Disp Unit

38 Group, Transport Command
RAF
EARLS COLNE

296th Squadron
297th Squadron

RIVENHALL

295th Squadron
570th Squadron

GREAT DUNMOW

190th Squadron
620th Squadron

WEATHERSFIELD

196th Squadron
299th Squadron

TARRANT RUSTON

298th Squadron
644th Squadron

46 Group, Transport Command
RAF
BROADWELL

TACTICAL UNITS

512th Squadron
575th Squadron

ASSIGNED UNITS

DOWN AMPY

ATTACHED UNITS

ALLOCATED UNITS

48th Squadron
271st Squadron

BLAKEHILL FARM

233rd Squadron

IX Troop Carrier Command

50th Troop Carrier Wing)
52nd Troop Carrier Wing)
53rd Troop Carrier Wing)
Pathfinder Group (Prov))

38 Group (RAF)

46 Group (RAF)

Eighth Air Force (US)

No. & Type a/c

1274 C-47

191 Stirling
65 Halifax
65 Albemarle

164 C-47

252 B-24

No. & type gliders

2160 CG-4A
104 Horsa

552 Horsa
64 Hamilcar
9 CG-4A

260 Horsa

5. Command and Control

a. The Advanced Command Post, established at EASTCOTE, was used by the Air Commanders concerned as a Combined Headquarters from which point all activities were directed.

b. All final decisions as to route, air support and weather were made by the Commanding General, First Allied Airborne Army, through his G-3, co-ordinated through Combined Headquarters at EASTCOTE.

II. PLANS

1. Procedure for the development of the Tactical Plan for this operation was that after an initial study of the suitability and capabilities of IX Troop Carrier Command, as applies to this particular problem, a coordinating conference was called of all Air and Airborne Commanders concerned. At this initial meeting the overall problem was studied and both Air and Airborne Commanders voiced their opinions as to the initial study prepared by IX Troop Carrier Command. Usually it is possible to decide staging airfields, serial composition, routes and location of Drop Zones and Landing Zones. Subsequent to scheduled commitments all available operational aircraft were placed in readiness for emergency missions of resupply and relieved from further freight hauling missions to the Continent.

2. Selection of staging airfields was based on the present location of Troop Carrier fields, distance from target areas, tactical composition of airborne units, suitability for marshalling gliders and location of supplies for emergency missions of resupply to airborne troops.

3. Airborne troop units were made up so as to coincide with the tactical air formation desired by the Troop Carrier Forces. There were a few departures made from the actual number of aircraft per serial desired by Troop Carrier when maintaining the desired number for the air serial would have meant poor tactical composition on the ground.

4. During the initial studies, the Air Commander and the Airborne Commander decided, in conjunction with each other, on Drop Zones and Landing Zones after a careful examination of terrain estimates and enemy defense overprints. The foregoing points all being decided firmly in the initial studies laid the foundation for the final tactical air plan.

5. Troop Carrier Routes

a. Routing of troop carrier aircraft was based on the following factors:

- (1) Shortest distance to target area with consideration given to prominent terrain features.
- (2) Traffic control patterns for IX Troop Carrier Command and RAF Units.

- (3) IAZ and balloon areas in United Kingdom.
- (4) Enemy anti-aircraft and searchlight batteries.
- (5) Avoiding dog-leg turns over water.
- (6) Making landfall at prominent irregular coastline.
- (7) Shortest distance over hostile territory.

b. In establishing troop carrier routes, during the initial studies, the Commander of Troop Carrier Forces decided to establish two (2) routes to the target area, one (1) to the North, traveling over enemy territory from the Coast to the target area; the other to the South, traveling over friendly territory from the Coast on and through a corridor held by our own Forces. This was done to provide greater security and to improve the flexibility in the execution of the entire plan. By simultaneous use of both routes Troop Carrier Forces were subjected to a minimum of ground fire and caused the enemy to divert aircraft over a much greater area in order to cover both courses. Proof as to the advisability of such a plan was seen on D plus 1, when, due to weather conditions, the Southern route was impassable, but the Northern route was not affected. Troop Carrier Forces were immediately routed over the Northern course, had this not been done, the Forces could not have delivered on that day. The delivery of glider artillery on D plus 1 was essential to support the parachute troops dropped on D Day.

c. For additional information and study of routes used for the operation refer to ANNEX NO. 1.

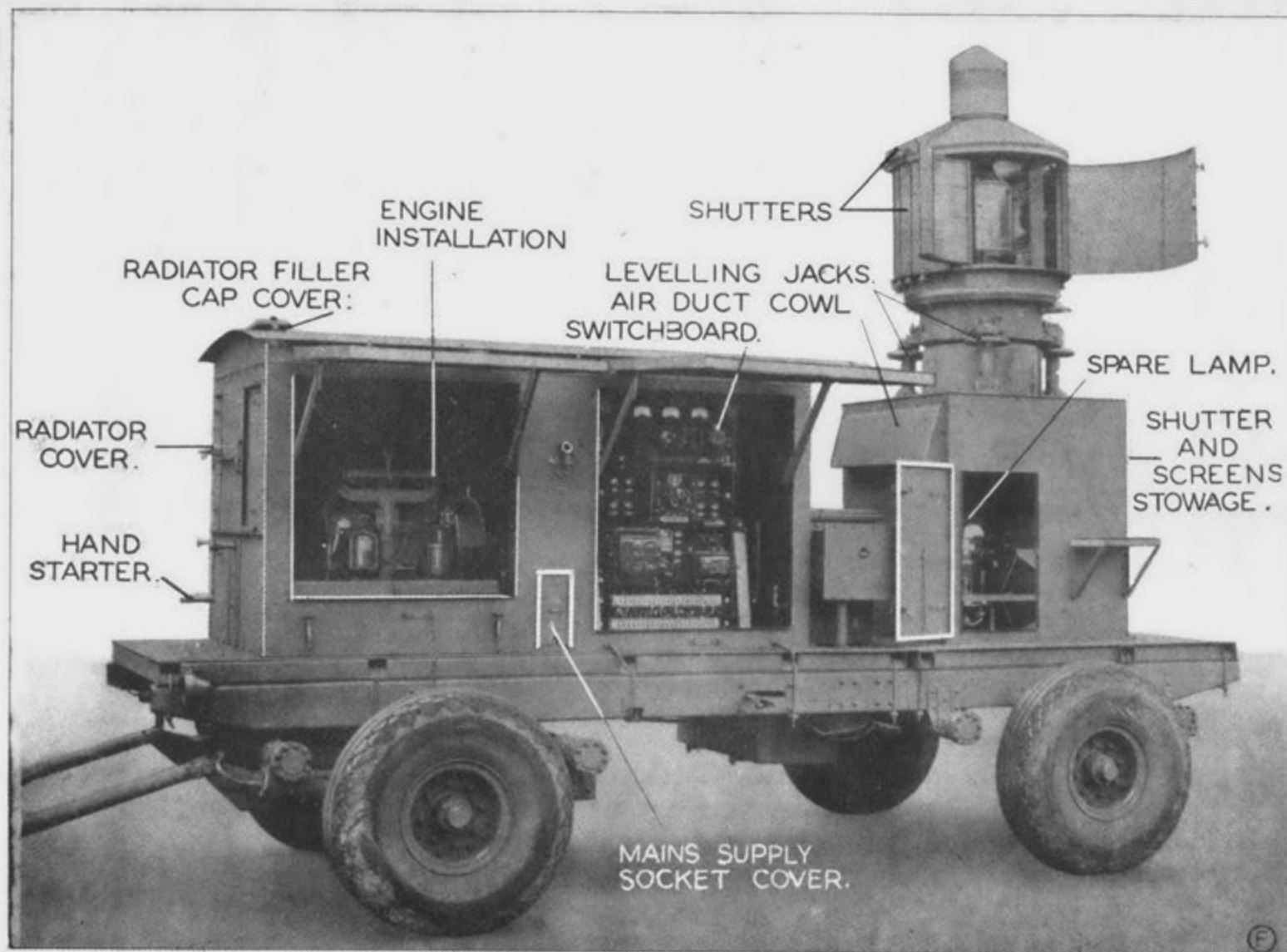
6. Navigation Aids

a. The selection of location and type of navigational aids were chosen in the same manner as in previous night operations. Even though this was a daylight operation, the idea was to make the problem of navigation as simple as possible. It was again proved in Operation MARKET as in NEPTUNE and DRAGOON that in presenting the navigation problem as a simple one aided greatly in the success of these missions.

b. Each site was given a code name for security reasons. Call signs were assigned to the site navigational aids to correspond with the first letter of the coded site name. In some cases this was not possible due to the similarity of certain letters in code with respect to one another.

c. Prior to the actual operation, tests and careful analysis of each navigational site were made in order to guarantee positive performance.

d. Situated at the Wing assembly points were Eureka beacons, M/F beacons and searchlight cones. Aids of this nature were used to a great advantage as a rendezvous point for Group and Serial formations as well as for Wing departure points. Departure points on the English coasts, where serials started their



Aerial Lighthouse used to mark Navigational sites

North Sea crossings, were equipped with Eureka beacons, M/F beacons and occults flashing the assigned code letter. Approximately half way between friendly coast and the enemy coast along the routes were located two (2) marker boats. These marker boats were equipped with a Eureka beacon and a green holophane light sending the assigned code letter. These boats served as a definite fix over water and added greatly in the accurate arrival times over the target areas. Landfall on the coast of HOLLAND was made by dead reckoning means, plus special radar equipment in lead aircraft as it was enemy held territory. At the Drop and Landing Zones, Pathfinder teams established prior to the arrival of the main force, Eureka beacons, M/F beacons, panels and colored smoke. These navigational aids served for identification of individual Drop Zones and Landing Zones as well as for homing purposes by serial leaders. Pathfinder crews, from the boat marker, located the target area by means of special radar equipment consisting of SCR 717-C and GEE installations in each aircraft.

e. For detailed information on types and numbers of navigational aids used in Operation MARKET, see ANNEX NO. 2.

7. Timing

a. Timing of troop carrier aircraft was based on the following factors:

- (1) To provide safe intervals between serials.
- (2) To provide for the shortest possible column time length.
- (3) To allow sufficient time on ground for servicing aircraft and resting combat crews between missions.
- (4) To gain best advantage from element of surprise.
- (5) To have parachute troops in early enough ahead of gliders to secure glider landing zones.
- (6) To have a special number of gliders in as early as possible after parachutists in order to provide early artillery support to the troops.
- (7) Parachute serials were spaced four (4) minutes head to head. Glider serials were spaced seven (7) minutes head to head.
- (8) Timing schedules are only a part of the original required for this mission. Timing schedules were prepared using clock times and based on H hour. This was necessary in case H hour was changed, due to weather or operational reasons. A quick calculation could then be made to obtain times over turning points, the Initial Point, drop and release times. See ANNEX NO. 3 and ANNEX NO. 4.

8. Plans

a. Altitudes

- (1) Altitudes chosen were chosen on a basis of avoiding small arms fire, heavy anti-aircraft fire, minimum safe altitude for drops and releases and clearance of aircraft coming in with those returning from target area.

Altitude - DZs	500' MSL
Altitude - LZs	500' MSL
Altitude - Out	1500' MSL
Altitude - Back	3000' MSL

b. Speeds flown

Parachute aircraft	140 mph IAS
Pathfinder aircraft	150 mph IAS
Aircraft towing gliders	120 mph IAS
Parachute aircraft from IP to DZ	120 mph IAS
Airspeed for parachute drop	110 mph IAS
All aircraft returning	150 mph IAS

Corrected speeds were given from Troop Carrier Command Post two (2) hours prior to each mission after final winds and altimeter settings were received.

9. Rope Drop

a. Glider tugs were instructed to drop ropes in predetermined rope drop zones common to all aircraft on return after release. Each glider tug dropped their ropes immediately after clearing the Landing Zone areas, thus facilitating rope recovery.

10. Payloads

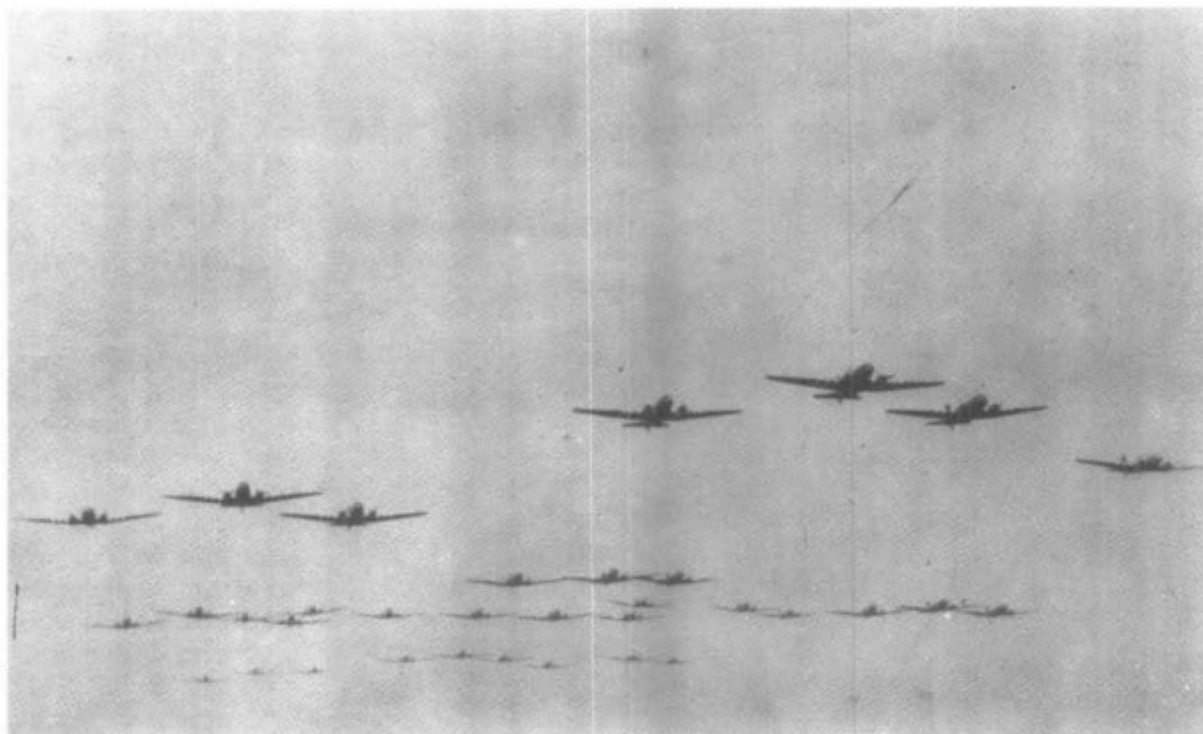
a. The following is the maximum in payloads established for the operation:

Parachute aircraft	5850 lbs max.
Horse gliders	6900 lbs max.
CG-4A (Waco) gliders	3750 lbs max.
Tug aircraft	Nil

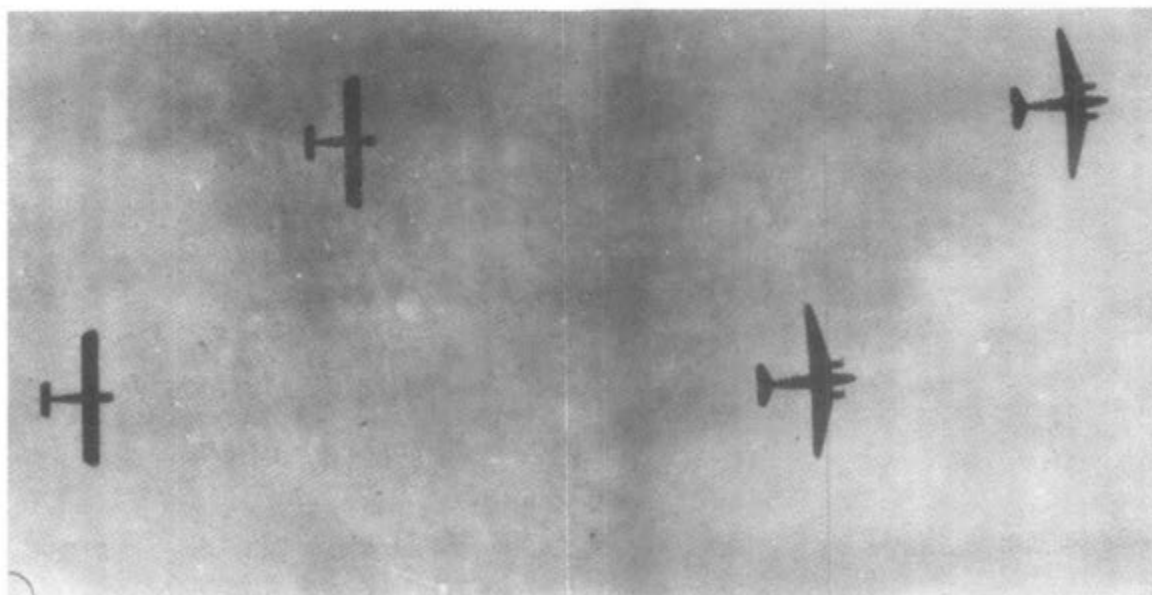
11. Formations

a. Parachute columns

- (1) Nine (9) ship vee of vees in serials up to forty-five (45) aircraft, in trail, with four (4) minute intervals head to head between serial lead aircraft.



Parachute Column - Nine (9) ship Vee of Vees in
Trail



Glider Column - Pair of pairs echeloned to the
Right

b. Glider Columns.

- (1) Pairs of pairs, echeloned to the right, serials up to forty-eight (48) aircraft towing gliders in trail, with seven (7) minute intervals between serial lead aircraft.

c. The above intervals and formation patterns provided for sufficient maneuverability of column and gave excellent concentration to paratroops and gliders on the ground in the target area.

d. In developing the formation column much consideration was given to keeping the column time length at a minimum to insure maximum benefit from fighter escort and permit the shortest time for operation over enemy territory. Since the operation was to take place in hours of daylight, it was possible to tighten the formation intervals (beyond the minimum established for night interval) to four (4) minutes head to head between serial lead aircraft for paratroop formations and to seven (7) minutes head to head between glider formations. In addition to closing intervals, three (3) parallel streams were provided to the target area, i.e., a left hand stream went from the IP to DZs and LZs in the APNHEM area with paratroops and equipment for the British Airborne Division; aircraft in the center stream went from the IP to DZs and LZs in the NIJMEGEN area with parachute troops and glider troops of the US 82nd Airborne Division; aircraft in the right hand stream went to DZs and LZs in the EINDHOVEN area with parachute troops and glider troops of the US 101st Airborne Division, a distance of one and one half (1½) miles existed between the center stream and the outside streams. In addition to the above column formation there were instances where 38 and 46 Groups (RAF) paralleled the center stream at the same time, but at one thousand (1000) feet higher altitude, thus providing four (4) streams to the target area at the same time.

e. On D Day all parachute elements of the above three (3) Airborne Divisions struck the enemy simultaneously at H Hour, placing from six to eight thousand (6000-8000) parachute infantrymen plus one hundred and twenty (120) glider loads of artillery in each Division area within a period of one hour and twenty minutes, a feat which gained much from the element of surprise and created much confusion to enemy forces in the entire area.

12. Emergency Landing Fields

a. Arrangements were made for emergency landing strips by notifying all airdromes in operation in EAST ANGLIA as well as landing strips in North-western FRANCE and BELGIUM, specific airdromes in EAST ANGLIA under Troop Carrier control which were CHIPPING ONGAR and BOREHAM.

13. Evasive Action

a. In order to firmly insure the maximum possible concentration on the ground for paratroops and gliders, directions were given and combat crews briefed to take no evasive action between the IP and DZs.

14. Failure to Release or Drop

a. It was the responsibility of the Wing and Group Commanders to enforce the Troop Carrier/Airborne policy that NO paratroops or gliders were to be returned to staging airdromes, but that all paratroops were dropped and all gliders released in the target area.

15. Air Support

a. Air support to Troop Carrier Forces and Airborne Troops was provided by the following agencies:

Eighth Air Force (US)
Ninth Air Force (US)
Air Defense of Great Britain
Second Tactical Air Force
Coastal Command, RAF
Bomber Command, RAF

b. The division of responsibility was carefully designated to the above units and specific tasks were assigned to each in accordance with the following:

(1) Eighth Air Force (US)

Escort and flak from IPs to DZs and LZs.
Executed resupply to airborne troops on D plus 1.

(2) Ninth Air Force (US) and 2nd Tactical Air Force

Air support to airborne troops after drop.

(3) Air Defense of Great Britain

Escort and flak from Landfall to IP.

(4) Coastal Command (RAF)

Executed diversion raids in connection with the operation.

(5) Bomber Command (RAF)

Carried out diversion parachute dummy drops and bombing of enemy installations.

(6) 2nd Tactical Air Force

Photo Recon of target areas.

c. The above agencies performed their assigned tasks with an exceptional skill and efficiency which contributed vitally to the success of the Troop Carrier Forces and kept the percentage of casualties very low. For a day by day activity report of air support, See ANNEX NO. 5

16. Anti-aircraft Gunfire Control Procedure

a. All Allied agencies, Army, Navy and Air Forces, were informed of the detailed flight plan for Troop Carrier columns. The Army Commander issued orders to all Allied troops in the area of routes and target not to fire on any aircraft until further notice.

b. In consideration of the detailed day-by-day report of the activities of air support to airborne operations, it is worthy of note that no enemy aircraft were encountered during the first day of Operation MARKET. It is also excellent testimony to the effectiveness of air support operations that so far as known, not a single aircraft of the 3990 dispatched by IX Troop Carrier Command from D day to and including D plus 10 was lost or damaged due to enemy air action. Credit is, of course, due to the highly efficient fighter cover and to the bombing and strafing of enemy airfields by both bombers and fighters assigned to the support of airborne operations.

c. In addition, losses due to flak and ground fire were held to a minimum by the constant harassing attacks of supporting aircraft on flak positions, transports, barges, and enemy installations by the bombers, fighters and fighter-bombers of United States Strategic Air Force, Eighth Air Force, Bomber Command (RAF), Ninth Air Force units (AEF), 2nd Tactical Air Force and British patrols assigned in direct support of the ground forces. From the standpoint of the IX Troop Carrier Command, the air support program was carefully planned and brilliantly executed.

17. Recovery of Gliders

a. SON airstrip in LZ "W" was constructed in the EINDHOVEN area where the majority of glider recovery was accomplished. An additional airstrip was constructed in LZ "O" and named GRAVE. GRAVE airstrip was also used for supply missions and proved highly satisfactory. The purpose of constructing airstrips in the LZs was to provide a quick method of recovery. The terrain was such that airstrips could be constructed and fly away gliders marshalled with little difficulty. Inclement weather slowed down the recovery, however, all operational pick-up aircraft in the 52nd, 53rd Troop Carrier Wings and Service Wings were ordered on detached service to the 50th Troop Carrier Wing stationed in FRANCE. Gliders were stored on the 50th Troop Carrier Wing fields. As of 18 December 1944, one hundred and ninety-nine (199) gliders have been recovered from the EINDHOVEN area, fifty-nine (59) are ready for flyaway, one hundred and twelve (112) will be ready within a twenty-four (24) hour period and fifteen (15) will be ready within seven (7) days.



View of C-47s on GRAVE airstrip
in HOLLAND

18. Administration

a. All administrative routine in conjunction with Operation MARKET prior to D Day, during the period of the missions and subsequent thereto, was accomplished in normal manner.

b. There was a definite indication that the lessons gained from practical experience in handling personnel matters during the NEPTUNE operation were put to good advantage during Operation MARKET. An emergency requisition for glider pilots, which was made for contemplated use during Operation LINNET (later cancelled), arrived at the eleventh hour prior to Operation MARKET to create a comfortable margin of the glider pilot reserve desired by Operations for the glider lifts. Redistribution of glider pilots continued up until twenty-four (24) hours prior to H Hour on D Day to meet varying operational commitments. This condition was undesirable due to unfamiliarity of personnel with organizations out of which they finally operated and did not permit the compatibility to teamwork desired in the organizations by combat operations. An attempt was made to overcome this by keeping groups of glider pilots together going to tactical squadrons but in all instances this was not possible. If tactical commitments were maintained within the scope of personnel and equipment normally authorized for tactical units of this command, personnel disposition would present absolutely no problem.

c. As in other glider lift operations, administrative control of casualty reports on glider pilots in the MIA category was controlled by the highest Troop Carrier headquarters establishing a date after which such individuals may be so reported. Due to the tremendous success enjoyed by this operation, all active participants were suitably recognized by appropriate awards.



Paratroops receiving last minute instructions from jumpmaster prior to take-off from a Troop Carrier base in ENGLAND

III. OPERATIONS

1. Briefing

a. Wing and Group Commanders were briefed on Operation MARKET at Troop Carrier Command Headquarters on D minus 2 by the A-3 Section of IX Troop Carrier Command. Group Commanders upon return to their proper stations briefed Squadron Commanders and essential Squadron Staff Members who, in turn, prepared the detailed briefing of all combat crews. Briefings of combat crews were held at unit stations on D minus 1.

b. Group S-3 officers covered the following points:

- (1) Take-off times.
- (2) Target Times.
- (3) Altitudes to be flown to and from target area.
- (4) Emergency procedures.
- (5) Reviewed SOP on drop procedure.
- (6) Reviewed SOP on glider release procedure.
- (7) Formations to be flown.
- (8) Break-up of glider columns to the various landing zones.

c. Group S-2 officers briefed on:

- (1) Enemy installations.
- (2) Escape kits and escape procedure.
- (3) Tactical situation.
- (4) Prepared distribution of maps and photographs.

d. Communication officers briefed on:

- (1) All signals and equipment to be used.
- (2) Recalls
- (3) Diversions
- (4) Frequencies

e. Radar officers covered all radar equipment available for the operation and explained in detail the position of radar navigational aids, giving their frequencies and call signs, along the route and in the target areas.

f. Due to limited space allowed for briefings in most stations of this command, it was necessary for the Group Glider Officer, in conjunction with the airborne liaison officer, to brief the glider pilots at a separate briefing.

g. Group Weather Officers presented in detail the route weather to be encountered to and from the target area. Postponement of the operation due to weather was to be relayed through channels from a decision reached at Headquarters, First Allied Airborne Army.



Gliders marshalled prior to take-off
on Troop Carrier base in ENGLAND.

2. Serial Report - D Day

50th Troop Carrier Wing

a. Serial A-15 - 439th Troop Carrier Group.

30 C-47s dropped parachutists on LZ "N" at 1324. Results were excellent. Light inaccurate moderate flak in woods NW and SE of LZ. 1 C-47 ditched, 3 C-47s damaged. No personnel casualties.

b. Serial A-28 - 439th Troop Carrier Group.

50 C-47s and CG-4A gliders released over LZ "N" at 1347. Results were excellent. Light inaccurate flak in woods NW and SE of LZ. Heavy accurate moderate flak North shore of SCHOUWEN ISLAND. 1 accidental release, 1 CG-4A missing, 5 C-47s damaged and 1 personnel missing.

c. Serial A-19 - 441st Troop Carrier Group.

45 C-47s dropped parachutists on DZ "T" at 1334. Results good. Heavy accurate flak at woods N and S of DZ. Light inaccurate and moderate 8 miles before DZ on route in to left. Medium inaccurate flak at SCHOUWEN ISLAND. 5 aircraft dropped paratroops 3/4 miles short of DZ. 1 C-47 missing. No personnel killed, wounded or missing.

d. Serial A-21 - 440th Troop Carrier Group.

42 C-47s dropped parachutists on DZ "T" at 1329. Results good. Small arms fire heavy E and W of DZ. Heavy accurate intense flak in forest NW and NE of DZ. Light flak on coast and landfall. Left side of SCHOUWEN ISLAND inaccurate moderate. 1 aircraft dropped on DZ "O" due to mix up in signals. 1 C-47 destroyed. 2 C-47s non-flyable, 1 C-47 damaged. 1 personnel wounded, 6 missing.

e. Serial A-23 - 440th Troop Carrier Group.

48 C-47s dropped parachutists on DZ "N" at 1333. Results good. Light inaccurate moderate to intense flak W and S of DZ. Light flak on coast and landfall. Left side of SCHOUWEN ISLAND intense moderate accurate. 3 C-47s damaged. No personnel killed, wounded, or missing.

3. Serial Report - D Day

52nd Troop Carrier Wing

a. Serial A-3 - 313th Troop Carrier Group.

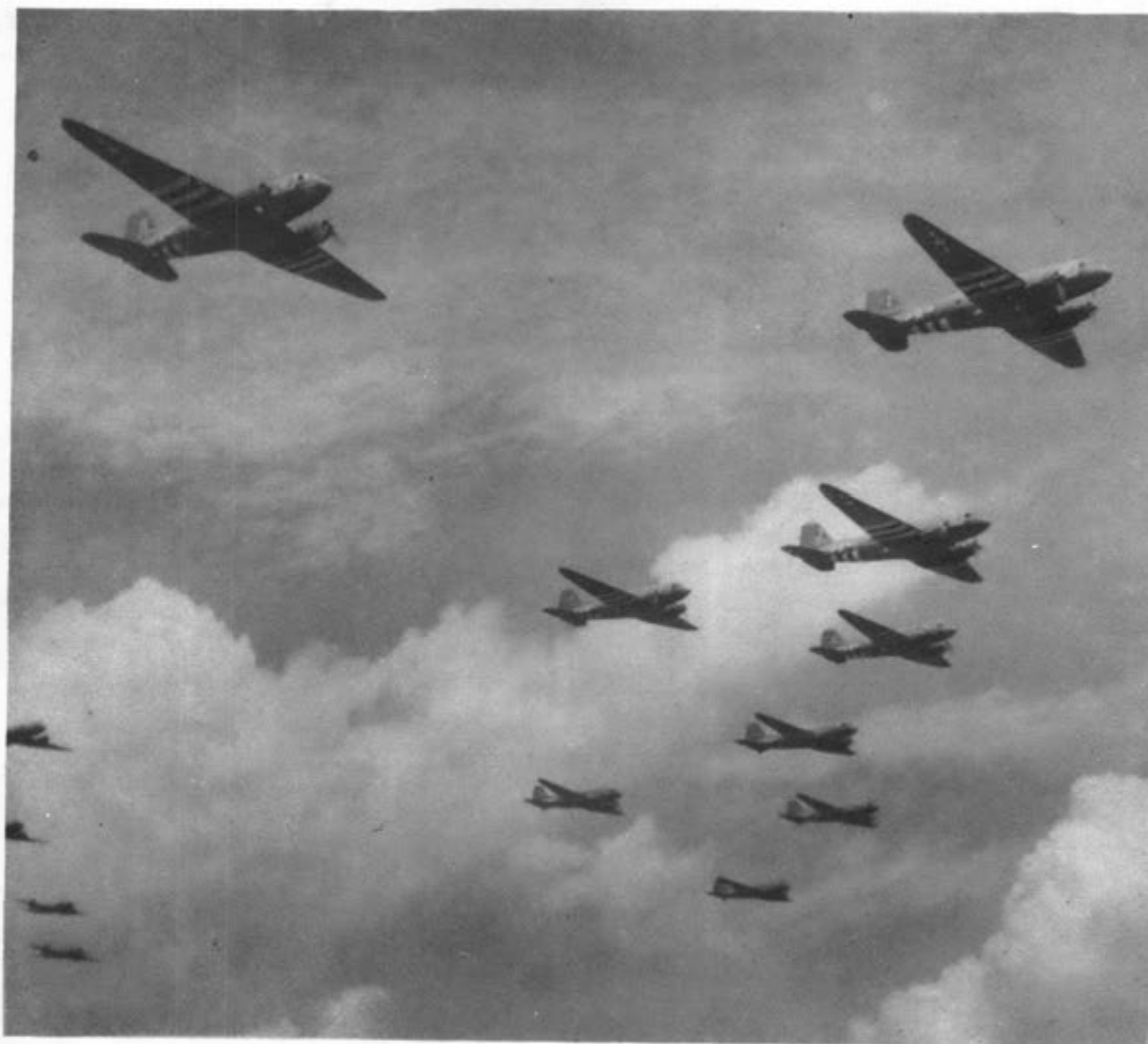
43 C-47s and 2 C-53s dropped parachutists on DZ "N" 1300. Load 751 paratroops, 260 parapacks weighing 57,947 pounds. Encountered accurate heavy and light, moderate to intense flak at and near DZ "N". 1 refusal. Dropped 1 1/2 to 2 1/2 miles NE of DZ "N" due to navigation error. 2 C-47s missing, 15 aircraft damaged by ground fire.

b. Serial A-5 - 313th Troop Carrier Group.

45 C-47s dropped parachutists on DZ "N" 1308. Load: 676 paratroops, 226 parapacks weighing 52,858 pounds. 3 refusals. 2 jumped later 3 miles SW of DZ. 2 aircraft damaged by ground fire. No losses.

c. Serial A-7 - 316th Troop Carrier Group.

45 C-47s dropped parachutes on DZ #N# 1312. Load:
685 paratroops, 270 parapacks weighing 30,820 pounds.
2 refusals. No casualties. 3 aircraft sustained
minor damage from small arms fire. 6 parapacks returned
due to mechanical failure.



Parachute Serials enroute to HOLLAND
D Day

d. Serial A-9 - 316th Troop Carrier Group.

42 C-47s and 3 C-53s dropped parachutists on DZ "O" 1315. Load: 677 paratroops, 270 parapacks weighing 36,850 pounds. 1 C-47 ditched.

e. Serial A-11 - 315th Troop Carrier Group.

45 C-47s dropped parachutists on DZ "O" 1313; Load: 555 paratroops, 228 parapacks weighing 39,950 pounds. 5 refusals; 2 wounded. One aircraft missing, 1 aircraft major damage and 5 received minor damages.

f. Serial A-13 - 315th Troop Carrier Group.

45 C-47s dropped parachutists on DZ "O" 1317; Load: 685 paratroops, 245 parapacks weighing 46,825 pounds. 1 aircraft damaged by ground fire.

g. Serial A-24 - 314th Troop Carrier Group.

36 C-47s dropped parachutists on DZ "X" 1350; Load: 595 paratroops, 120 parapacks weighing 25,110 pounds. Rebecca-Eureka operation satisfactory. 3 aircraft received minor battle damage, 1 aircraft non-flyable, due to battle damage. 1 aircraft non-flyable due to mechanical failure.

h. Serial A-25 - 314th Troop Carrier Group.

33 C-47s and 3 C-53s dropped parachutists on DZ "X" 1356; Load: 520 paratroops, 128 parapacks weighing 29,500 pounds. 2 refusals. 14 parapacks failed to drop due to mechanical failure. No Losses.

i. Serial A-26 - 61st Troop Carrier Group.

36 C-47s dropped parachutists on DZ "X" 1403; Load: 559 paratroops, 216 parapacks weighing 29,610 pounds. No Losses. No damages.

j. Serial A-27 - 61st Troop Carrier Group.

35 C-47s dropped parachutists on DZ "X" 1408; Load: 609 paratroops, 216 parapacks weighing 29,610 pounds. All aircraft dropped on DZ. 15 parapacks failed to release. 1 refusal due to sickness. No losses of aircraft but 1 aircraft was rendered non-flyable - wing tip shot off and aileron damaged.

4. Serial Report - D Day

53rd Troop Carrier Wing

a. Serial A-4 - 434th Troop Carrier Group.

45 C-47s dropped on DZ "A" at 1301. Heavy flak and ground fire encountered between IP and LZ. 4 aircraft lost, 10 aircraft damaged. Drop successful.



Aerial view of paratroop taken by paratroop
observer with camera strapped to chest -
D Day

b. Serial A-6 434th Troop Carrier Group.

45 aircraft dropped parachutists on DZ "A" at 1306. ground fire and flak ranged from medium to intense between IP and DZ. Drop successful. 8 aircraft damaged, 2 lost.

c. Serial A-8 - 442nd Troop Carrier Group.

45 C-47s dropped parachutists in DZ "A" at 1311. Heavy to medium flak IP to DZ. All loads in DZ or immediate vicinity. 2 aircraft lost over DZ after loads jumped. Results good.

d. Serial A-10 - 442nd Troop Carrier Group.

45 aircraft dropped parachutists in DZ "B" at 1314. 4 aircraft lost, 5 aircraft damaged. Flak medium IP to DZ. Result excellent.

e. Serial A-12 - 436th Troop Carrier Group.

45 aircraft dropped parachutists on DZ "B" at 1319. Intense Flak NE of DZ. 5 aircraft lost. 13 aircraft damaged. Result excellent.

f. Serial A-14 - 436th Troop Carrier Group.

45 aircraft dropped parachutists in DZ "B" at 1324. 11 aircraft damaged by flak between IP and DZ and return. Results excellent.

g. Serial A-16 - 435th Troop Carrier Group.

36 aircraft dropped parachutists in DZ "C" at 1324. 2 aircraft lost, 10 aircraft damaged. Medium to heavy ground fire and flak in IP to DZ. Results excellent.

h. Serial A-18 - 435th Troop Carrier Group.

28 aircraft dropped parachutists in DZ "C" at 1328. 8 aircraft damaged by light to heavy ground fire and flak from IP to DZ. Parachutists spread slightly in area. Results good.

i. Serial A-20 - 438th Troop Carrier Group.

45 aircraft dropped parachutists in center and NW of DZ "C" at 1333. 1 aircraft damaged by medium to heavy flak from IP to DZ and return. Drop made in corner of DZ. Results successful.

j. Serial A-22 - 438th Troop Carrier Group.

45 aircraft dropped parachutists in center and NW of DZ "C" at 1338. 11 aircraft damaged by light to medium flak on route in and out. Results successful.

5. Serial Report - D plus 1

50th Troop Carrier Wing

a. Serial A-36 - 439th Troop Carrier Group.

50 C-47s and 50 CG-4As released over LZ "N" at 1518. Results were excellent. Small arms fire and light flak in woods right of LZ. Inaccurate and meager flak at IP. Light inaccurate flak from IP to HERTOGENBOSCH. 20-mm light inaccurate at 3500 feet. 2 CG-4A gliders aborted. 16 personnel missing in action.

b. Serial A-44 - 440th Troop Carrier Group.

40 C-47s and 40 CG-4As released over LZ "T" at 1455. Results were excellent. Accurate meager flak on N and S edge of LZ. Slight medium and accurate flak over FLOKEE. Heavy accurate meager south of village at IP and light small arms fire. 3 aircraft non-operational due to damages received. No personnel killed, wounded or missing.

c. Serial A-54 - 440th Troop Carrier Group.

40 C-47s and 40 CG-4As released over LZ "T" at 1550. Results excellent. 1 C-47 and glider failed to reach LZ. 1 C-47 missing, 5 C-47s damaged. Light moderate inaccurate flak and small arms fire NE and S of LZ. Light accurate intense flak one half mile S and NW of IP.

d. Serial A-46 - 441st Troop Carrier Group.

40 C-47s and CG-4As released over LZ "N" at 1511. Results good. No aircraft damaged or lost. No personnel casualties. Light flak inaccurate moderate to meager and small arms fire at LZ. Moderate to intense flak at junction of road SW of MOERDYK. Light flak and machine gun fire 2 miles SE of HERTOGENBOSCH.

e. Serial A-56 - 441st Troop Carrier Group.

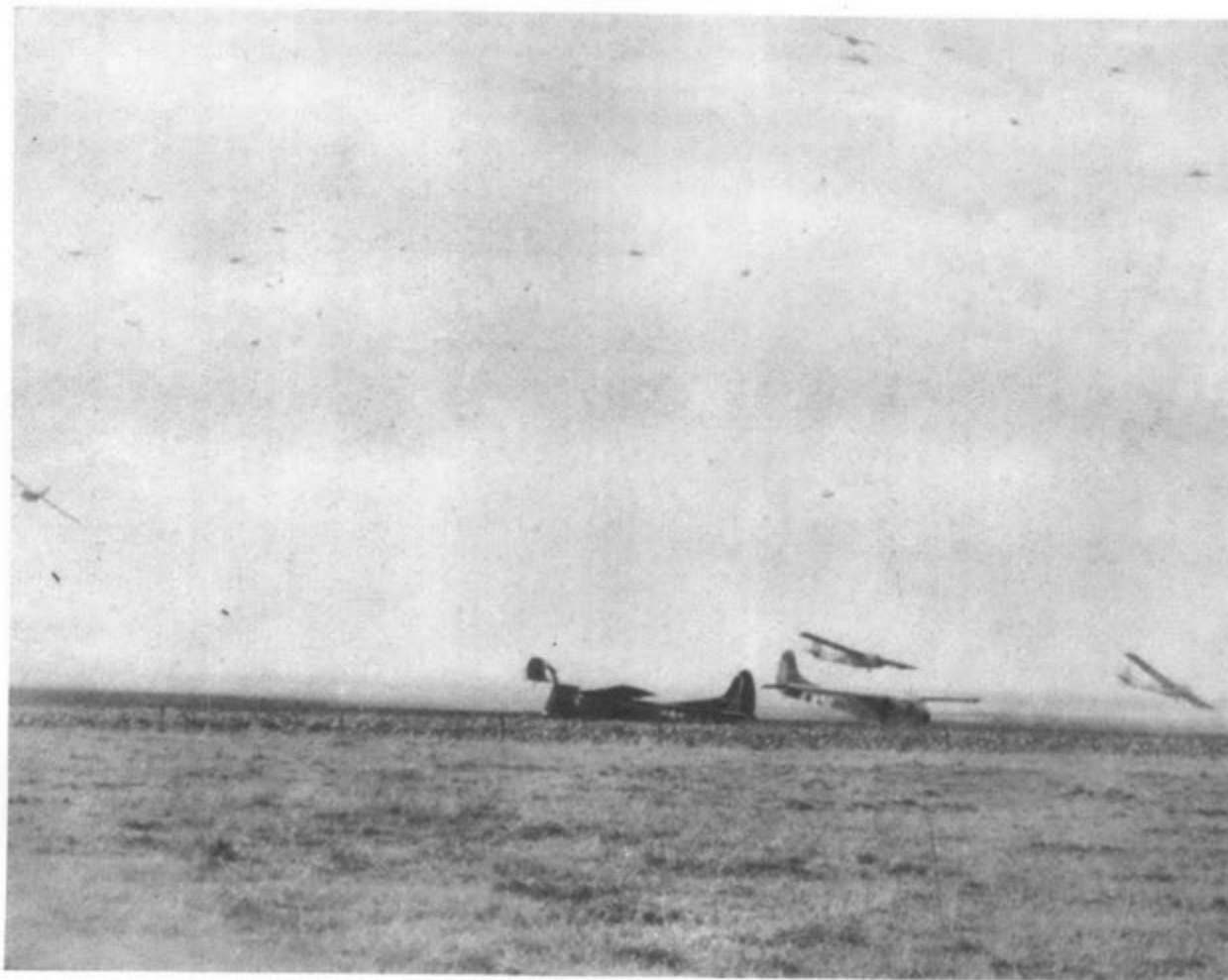
40 C-47s and 40 CG-4As released over LZ "N" at 1608. Results good. No aircraft lost or damaged. No personnel killed, wounded or missing. In woods SE of LZ small arms fire and accurate meager flak. NW top of SCHOUWEN ISLAND 6 to 8 heavy guns - inaccurate moderate.

k. Serial A-29 - 437th Troop Carrier Group.

35 aircraft and 35 gliders. 31 gliders released in LZ "W" at 1348. 3 gliders lost when ships exploded between I^P and LZ. 1 glider and tow ship unknown. 24 aircraft damaged by heavy flak and ground fire, encountered beyond enemy lines. Results excellent.

l. Serial A-30 - 437th Troop Carrier Group.

35 aircraft and 35 gliders. 28 gliders released in LZ "W" at 1355. 2 gliders lost when tow ships exploded in air approaching LZ. 3 gliders aborted on Continent due to mechanical failure and 1 glider aborted over channel. 1 glider unreported. 4 aircraft lost and 22 aircraft damaged by intense flak in the LZ area and approach thereto. Results successful.



CG-4A gliders landing in LZ Area on D plus 1

6. Serial Report - D plus 1

52nd Troop Carrier Wing

a. Serial A-31 - 314th Troop Carrier Group.

36 C-47s dropped parachutists on DZ "Y" at 1406. Load: 626 paratroops, 89 parapacks weighing 24,160 pounds. Flak encountered on route from landfall. 1 aircraft crashed due to small arms fire, no chutes seen.

b. Serial A-32 - 314th Troop Carrier Group.

33 C-47s and 3 C-53s dropped parachutists on DZ "Y", at 1412. Load: 591 paratroops, 130 parapacks weighing 22,610 pounds. 3 aircraft lost due to flak.

c. Serial A-33 - 315th Troop Carrier Group.

27 C-47s dropped parachutists on DZ "Y" at 1416. Load: 462 paratroops, 87 parapacks weighing 25,600 pounds. All but two (2) dropped on LZ. 2 aircraft crashed.

d. Serial A-34 - 315th Troop Carrier Group.

27 C-47s dropped parachutists on DZ "Y" at 1418. Load: 440 paratroops, 101 parapacks, 17 bicycles, 3 motorcycles, 2 trolleys and 2 bundles of stretchers weight 30,296 pounds. 18 aircraft dropped on LZ, 9 dropped up to 2 miles N of LZ. 2 personnel wounded. 11 aircraft damaged.

e. Serial A-38 - 313th Troop Carrier Group.

40 C-47s, 2 C-53s and 42 CG-4A gliders dropped on LZ "N", at 1431. Load: 172 troops weighing 73,780 pounds. 41 gliders released on LZ, 1 aircraft missing, 7 aircraft damaged by ground fire.

f. Serial A-42 - 316th Troop Carrier Group.

40 C-47s, 2 C-53s and 42 CG-4A gliders dropped on LZ "T" at 1441. Load: 175 troops, 2 photographers, 21 jeeps, 2 75-mm howitzers, 4266 pounds of ammo and 13,532 pounds of equipment. 1 glider ditched. 1 aircraft missing. 13 aircraft unserviceable due to flak; 6 aircraft slightly damaged by flak.

g. Serial A-48 -

39 C-47s, 1 C-53 and 40 CG-4A gliders released on LZ "N" at 1532. Load: 137 troops weighing 97,280 pounds (including equipment). 1 glider was abortive. 1 C-47 damaged by small arms fire, 1 crew member slightly wounded. 4 other aircraft received minor damage.

h. Serial A-50 - 61st Troop Carrier Group.

40 C-47s and 40 CG-4a gliders released on LZ "T" at 1537. Load: 108 troops, 17 jeeps, 7 trailers, 1 75 mm howitzer, 3 105-mm howitzers and 33,300 pounds of equipment. 30 aircraft released on LZ, remainder landed 12 miles SE of LZ. No aircraft losses.

i. Serial A-52 -

38 C-47s, 2 C-53s and 40 CG-4A gliders released on LZ "N", at 1535. Load: 209 troops, 11 trailers, 3 75-mm howitzers and 26,160 pounds of ammo and equipment. 17 gliders landed up to 5 miles SE of LZ, 9 gliders unknown. 6 landed on LZ. 1 glider landed at DZ "O". 4 gliders landed 4 miles from LZ. 2 gliders released 25 miles SW of LZ. 4 C-47s were lost due to flak.

7. Serial Report - D plus 1

53rd Troop Carrier Wing

a. Serial A-35 - 434th Troop Carrier Group.

40 aircraft and 40 gliders. 36 gliders released on LZ "W" at 1437. 3 gliders aborted on Continent due to mechanical failure and flak, 1 glider aborted in UK due to airborne error. 2 aircraft were lost after release of gliders at LZ due to enemy flak. 21 aircraft damaged by medium to heavy flak and ground fire from IP to LZ. Results successful.

b. Serial A-37 - 435th Troop Carrier Group.

30 aircraft and 30 gliders. 30 gliders released in LZ "W" at 1439. 8 aircraft were damaged by light flak from landfall to LZ. Results successful.

c. Serial A-39 - 438th Troop Carrier Group.

40 aircraft and 40 gliders. 38 gliders released on LZ "W" at 1452. 1 glider aborted after take-off in UK due to mechanical difficulty and one aborted off SCHÖENWEIN ISLE due

to flak cutting tow rope. 11 aircraft damaged due to ground fire and light flak. Results successful.

d. Serial A-41 - 442nd Troop Carrier Group.

40 aircraft and 40 gliders. 39 gliders released at LZ "W" at 1515. 1 glider aborted in UK. 3 aircraft damaged due to light flak. Results successful.

e. Serial A-43 - 436th Troop Carrier Group.

40 aircraft and 40 gliders. 39 gliders released at LZ "W" at 1505. 1 glider aborted in UK due to structural failure. 1 aircraft lost. 2 aircraft crashed landed at home station account battle damage. Results successful.

f. Serial A-45 - 437th Troop Carrier Group.

40 aircraft and 40 gliders. 33 gliders released in LZ "W" at 1515. 1 glider aborted in UK account mechanical failure and 1 glider crashed at HATFIELD for unknown reason. Only 1 aircraft hit by enemy fire. Results successful.

g. Serial A-47 - 434th Troop Carrier Group.

40 aircraft and 40 gliders. 38 gliders released in LZ "W" at 1324. 2 gliders aborted in channel. 22 aircraft received minor battle damage. Results successful.

h. Serial A-49 - 435th Troop Carrier Group.

30 aircraft and 30 gliders. 30 gliders released in LZ "W" at 1530. Light flak on return damaged 9 aircraft. Results successful.

i. Serial A-51 - 438th Troop Carrier Group.

40 aircraft and 40 gliders. 40 gliders released in LZ "W" at 1533. 11 aircraft damaged by light flak and on return route. Results successful.

j. Serial A-53 - 442nd Troop Carrier Group.

40 aircraft and 40 gliders. 40 gliders released in LZ "W" at 1615. 1 glider aborted near LZ when flak knocked off wing. 3 aircraft damaged. 1 aircraft ditched. Results successful.

k. Serial A-55 - 436th Troop Carrier Group.

40 aircraft and 40 gliders. 2 gliders aborted in UK.
37 gliders released in LZ at 1522. 8 aircraft damaged
by light ground fire and flak. Results successful.

l. Serial A-57 - 437th Troop Carrier Group.

30 aircraft and 30 gliders. 27 gliders released at LZ
"W" at 1557. 1 glider ditched and 2 aborted in UK due
to mechanical failure. 1 aircraft suffered battle dam-
age. Results successful.



Paradrop Mission on D plus 2

8. Serial Report - D plus 2

50th Troop Carrier Wing

a. Serial A-74 - 438th Troop Carrier Group

40 C-47s and 40 CG-4As released over LZ "W". Results fair. 6 CG-4As released, location unknown. 4 CG-4As out loose over Channel, 6 CG-4As returned to home base. 4 CG-4As released in friendly territory on continent. 1 C-47 destroyed, 1 C-47 damaged. 12 personnel missing in action. Heavy and light intense accurate flak along both sides of course from IP to DZ.

9. Serial Report - D plus 2

52nd Troop Carrier Wing

a. Serial A-94 - 61st Troop Carrier Group.

35 C-47s. Resupply mission to DZ "O" at 1530. Load: 192,500 pounds. Mission 80% effective. 2 C-47s lost due to flak, 1 personnel (QM) bailed out over front lines.

b. Serial A-84 -

27 C-47s. Paradrop on DZ "K" at 1517. Load: 361 paratroops and 141 parapacks. 25 C-47s abortive due to weather. Flak encountered on DZ. 1 C-47 forced down by flak, 1 aircraft damaged by flak and small arms fire.

c. Serial A-85 - 315th Troop Carrier Group.

27 C-47s. Paradrop on DZ "K" at 1708. Load: 359 paratroops, 120 parapacks, 19 bicycles, 9 motorcycles weighing 29,795 pounds. 2 aircraft abortive due to weather.

d. Serial A-86 - 314th Troop Carrier Group.

27 C-47s. Paradrop on DZ "K" at 1716. Load: 295 paratroops, 112 parapacks, 8 motorcycles, 6 bicycles and 5 motor trolleys, weighing 31,400 pounds. 11 aircraft abortive due to weather. Flak weapons and machine guns surrounded the DZ area and fire was intense. No losses but 4 aircraft received battle damage.

- e. Serial A-87 - 314th Troop Carrier Group.

33 C-47s. Parachute on LZ "K" at 1712. Load: 396 paratroops, 116 parapacks weighing 29,183 pounds. 3 aircraft aborted due to weather. No losses but 12 aircraft received battle damage, 3 aircraft flyable, 9 non-flyable. Heavy concentration of enemy fire noted about the LZ.

10. Serial Report on D plus 2

53rd Troop Carrier Wing

- a. Serial A-72 - 434th Troop Carrier Group.

41 aircraft and 41 gliders. 29 gliders released on LZ "A" at 1437. 12 gliders aborted account weather, 9 landing on continent, 1 in channel and 2 missing, 2 aircraft failed to return and 20 aircraft suffered battle damage. Results partially successful.

- b. Serial A-73 - 435th Troop Carrier Group.

31 aircraft and 30 gliders. 25 gliders released on LZ "W" at 1444. 6 gliders aborted account weather. 3 landed on continent, 2 landed in channel and 1 landed in UK. 1 aircraft failed to return, 2 aircraft damaged by light to medium flak and ground fire. Results successful.

- c. Serial A-74 - 438th Troop Carrier Group.

40 aircraft and 40 gliders. 19 gliders released at LZ "W" at 1500. 2 gliders released within 12 miles of LZ. 19 gliders aborted due to weather. 5 gliders returned to home station. 4 gliders in Channel. 3 gliders in UK. 7 gliders on continent. 1 aircraft lost and 11 damaged by ground fire and flak. Results partially successful.

- d. Serial A-75 - 442nd Troop Carrier Group.

40 aircraft and 40 gliders. 28 gliders released at LZ "W" at 1514. 12 gliders aborted due to weather and unknown reasons. 3 gliders landed in Channel. 3 gliders landed in UK, and 2 gliders released within 30 miles of LZ. 4 gliders disposition unknown. 1 aircraft lost and 20 aircraft damaged by enemy fire. Results partially successful.

- e. Serial A-76 - 436th Troop Carrier Group.

41 aircraft and 41 gliders. 21 gliders released on LZ

"W" at 1530. 20 gliders aborted due to weather. 2 gliders landed in channel, 11 landed on far shore, 9 landed in UK and 1 glider is unknown. 5 aircraft missing. 8 aircraft damaged as a result of enemy fire. Results partially successful.

f. Serial A-78 - 434th Troop Carrier Group.

40 aircraft and 40 gliders. 33 gliders released at LZ "W" at 1445. 1 glider aborted in channel and 5 gliders aborted on continent account weather. 1 glider is unknown. 2 aircraft lost and 11 aircraft damaged by enemy fire. Results successful.

g. Serial A-79 - 435th Troop Carrier Group.

31 aircraft and 31 gliders. 30 gliders released at LZ "W" at 1554. 1 glider aborted in UK due to prop wash. 2 aircraft lost and 11 damaged due to enemy action. Mission successful.

h. Serial A-80 - 438th Troop Carrier Group.

40 aircraft and 40 gliders. 30 gliders released at LZ "W" at 1546. 10 aborts due to flak and weather. 2 aircraft lost and 11 damaged by flak. Results successful.

i. Serial A-81 - 442nd Troop Carrier Group. 4

41 aircraft and 41 gliders. No gliders released at LZ "W" due to weather. 14 gliders released within 8 and 10 miles of LZ, 15 gliders returned to home base and 4 gliders landed in channel. 8 gliders landed on continent. 1 aircraft lost and 16 damaged by enemy fire. Results unsuccessful.

j. Serial A-82 - 436th Troop Carrier Group.

40 aircraft and 40 gliders. Serial returned to home base account of weather. 37 glider landing at home base, 1 landing at alternate field, and 2 crashing. Results unsuccessful.

11. Serial Report - D plus 3

50th Troop Carrier Wing

a. Serial A-104 - 439th Troop Carrier Group and 442nd Troop Carrier Group.

47 C-47s (32 from 442nd and 15 from 439th Group) carried out paradrop and resupply missions at LZ "W" at 1748. Results were good. 1 C-47 missing, 4 damaged. 4 personnel missing in action. Small arms ground fire over LZ inaccurate together with light moderate inaccurate flak. Fighter cover adequate.



Parachute Resupply drop at DZ "O" on
D plus 3

12. Serial Report on D plus 3

53rd Troop Carrier Wing

a. Serial A-97 - 434th Troop Carrier Group.

53 aircraft dropped resupply on DZ "O" at 1648. Drop scattered. Results partially successful.

b. Serial A-98 - 435th Troop Carrier Group.

45 aircraft dispatched. 4 dropped on DZ "O" at 1700. 1 aircraft aborted account paratroop failure. Results successful.

c. Serial A-99 - 438th Troop Carrier Group.

44 aircraft dropped resupply on DZ "O" at 1719. 5 packs failed to release. Results successful.

d. Serial A-100 - 436th Troop Carrier Group.

44 aircraft dropped resupply on DZ "O" at 1738. Drop scattered, but effective. Results successful.

e. Serial A-101 - 436th Troop Carrier Group.

40 aircraft dropped resupply on DZ "O" at 1732. Run in high drop scattered, but all in DZ Area. Results partially successful.

f. Serial A-102 - 437th Troop Carrier Group.

41 aircraft dropped resupply on DZ "O" at 1738. 4 rack loads failed to drop. Results successful.

g. Serial A-103 - 437th Troop Carrier Group.

42 aircraft dropped resupply in LZ "O" area at 1749. 5 bundles failed to release. Drop spread, but effective. Results successful.

h. Serial A-104 - 442nd Troop Carrier Group.

12 aircraft dropped parachutists at 1831 and 20 aircraft dropped resupply in DZ "W" at 1840. Results scattered but effective. Results good.

13. Serial Report - D plus 4

53rd Troop Carrier Wing

a. Serial A-109 - 437th Troop Carrier Group:

12 aircraft of 15 scheduled dropped resupply on LZ "W" at 1640. Drop spread because of weather. 3 aircraft aborted and returned to home base. Results partially successful.

b. Serial A-110 - 438th Troop Carrier Group.

15 aircraft dispatched. 2 aborted account weather. 1 aircraft aborted account mechanical failure. 12 dropped resupply on LZ "W" at 1631. Drop spread because of weather. Results partially successful.

c. Serial A-111 - 438th Troop Carrier Group.

33 aircraft dispatched. 2 aborted account weather. 31 aircraft dropped on DZ "O" at 1700. Drop spread because of weather. Results partially successful.

14. Serial Report - D plus 5

53rd Troop Carrier Wing

a. Serial A-105 - 436th Troop Carrier Group.

46 aircraft and 46 gliders. 46 gliders released in LZ "W" at 1632. Gliders included aborts of serial A-82. Results excellent.

b. Serial A-106 - 438th Troop Carrier Group.

38 aircraft and 38 gliders. 33 gliders released in LZ at 1636. 4 gliders aborted in UK and 1 aborted on continent. Results successful.

c. Serial A-107 - 434th, 435th, and 436th Troop Carrier Groups.

34 aircraft dispatched. Dropped resupply on DZ "W" at 1642. Spread drop. Results partially successful.

15. Serial Report - D plus 6

50th Troop Carrier Wing

a. Serial A-91 - 440th Troop Carrier Group.

40 aircraft and 40 gliders released over LZ "N" at 1613. Results partially successful. 21 gliders failed to be effective. 18 due to personnel and 3 because of mechanical trouble. 1 C-47 missing and 9 personnel missing. 1 aircraft RON in Brussels. In triangle formed by BOXTEL, SCHINDEL and ST. OEDENRONE heavy light small arms fire accurate and intense 3 miles east of BOXTEL in woods around heavy light inaccurate meager flak reported.

b. Serial A-95 - 440th Troop Carrier Group.

48 aircraft and 48 gliders released over LZ "O" at 1710. Results partially successful. 3 gliders failed to become effective. Light flak N and NW of LZ "O". Small arms fire inaccurate and meager. N and W of IP heavy and light inaccurate. No aircraft lost or damaged and no personnel killed, wounded or missing.

c. Serial A-92 - 441st Troop Carrier Group.

38 aircraft and 38 gliders released over LZ "O" at 1526. Results good. 1 aircraft missing and 1 destroyed. 1 personnel wounded in action. Flak in wooded areas all way to IP. Beyond IP in woods N and S of HENZHER light accurate and moderate flak reported.

d. Serial A-96 - 441st Troop Carrier Group.

50 aircraft and 50 gliders released over LZ "O" at 1717 hours. Results good. 1 glider ineffective due to mechanical trouble. No aircraft damaged or missing. No personnel casualties. 20-mm NW of EINDHOVEN. Small arms fire at IP.

16. Serial report - D plus 6

52nd Troop Carrier Wing

a. Serial A-88 - 313th Troop Carrier Group.

49 aircraft and 49 gliders. Glider tow and release on LZ "O", at 1603. Load: 403 troops and 72,929 pounds of equipment. 2 gliders shot down, 3 premature releases. 10 aircraft damaged by enemy fire.

b. Serial A-89 -

43 aircraft and 43 gliders. Glider tow and release on LZ "O" at 1602. Load: 547 troops, 1600 pounds ammo, 500 pounds signal equipment, jeep, trailers, weighing 3670 pounds and 50 pounds water. 4 aborts.

c. Serial A-90 -

41 aircraft and 41 gliders. Glider tow and release on LZ "O" at 1616. Load: 519 troops, 18,915 pounds of equipment, ammo, and medical supplies. No aborts. 1 aircraft lost due to flak, 12 aircraft damaged.

d. Serial A-84 - 314th Troop Carrier Group.

41 C-47s. Parachute drop on LZ "O" at 1645. Load: 540 troops, 219 parapsacks, 3 motorcycles and 2 bicycles weighing 55,459 pounds. 40 aircraft dropped on LZ, one dropped short. No losses or battle damage reported.

e. Serial A-93 - 313th Troop Carrier Group.

49 aircraft and 49 gliders released on LZ "O" at 1658. Load: 621 troops, 31,121 pounds of equipment. 46 aircraft released on LZ "O". 3 glider released prematurely. 1 aircraft missing due to flak, 3 aircraft damaged.

f. Serial A-94 - 316th Troop Carrier Group

48 aircraft and 48 gliders released on LZ "O" at 1708. Load: 195 troops, 112,085 pounds of equipment, 5,325 pounds ammo. No aborts. Heavy concentration of enemy fire in vicinity of Eindhoven. 1 C-53 lost due to flak. All gliders landed on the LZ.

17. Serial Report - D plus 9

52nd Troop Carrier Wing

a. Serial A-107 -

29 C-47s. Airlanding on strip 2 1/2 miles W of GRAVE, HOLLAND at 1350. Load: 162 troops, 128,384 pounds of freight. No enemy aircraft encountered.

b. Serial A-112 - 315th Troop Carrier Group.

36 C-47s. Air landing near GRAVE at 1445. Load: 158 troops, 114,535 pounds equipment. Very good fighter cover.

c. Serial A-113 - 315th Troop Carrier Group.

36 C-47s. Airlanding near GRAVE at 1515. Load: 331 troops, 129,857 pounds equipment.

d. Serial A-114 - 316th Troop Carrier Group.

36 C-47s and 1 C-53. Airlanding near GRAVE at 1650. Load: 40 troops and 160,657 pounds of equipment.

e. Serial A-115 - 316th Troop Carrier Group.

35 C-47s and 1 C-53. Airlanding near GRAVE at 1615.
Load: 65 troops and 162,823 pounds of equipment.

f. Serial A-116 - 313th Troop Carrier Group.

36 C-47s. Airlanding near GRAVE at 1650. Load: 117 troops, 116,963 pounds of equipment. Mission completely successful.



C-47s with loaded parapacks in flight
during parachute resupply mission

18. Air/Sea Rescue Services

a. On Operation MARKET, from D Day to D plus 9, the willing and efficient cooperation of the A/Sea Rescue Service was maintained.

b. Two (2) corridors were established from D Day to D plus 2, and despite the fact that short notice was given for changes of time and route, one one corridor being used after D Day, this service was able to provide facilities which resulted in the rescue of many of our personnel.

c. Air/Sea Rescue Service can be divided into two (2) parts:

(1) Naval Control:

- (a) Equipment consisted of "R" motor launches, high speed launches, and motor torpedo boats.
- (b) It had been the common practice before narrow air corridors were established for Air/Sea Rescue launches to carry out short patrols near their home base, so as to be at immediate call for any emergency. This was efficient in the case of bombers returning from missions on the Continent, when they were not flying along any organized course, and very sporadic.
- (c) Prior to Operation MARKET, representation was made to Naval authorities concerned, that in view of the fact that two (2) air corridors were established, Air/Sea rescue launches be placed at irregular intervals along these corridors. This was eventually carried out, and in the Northern corridor alone, seventeen (17) Air/Sea Rescue launches were so placed, while in the Southern corridor, which was much shorter, ten (10) were used.
- (d) The efficiency of this move was well portrayed when the entire crew of a C-47 (Dakota) forced to ditch on return from HOLLAND, were picked up even before the aircraft had submerged. Aircraft were previously briefed that Air/Sea Rescue launches would be placed at intervals along corridors, and aircraft instead of idly ditching, were able to ditch somewhere in the vicinity of a rescue launch.
- (e) On D plus 2, weather over the sea was very bad, sea fog minimizing visibility to about one mile or so. Gliders were breaking tows in all directions and one motor torpedo boat, so placed along the corridor about forty (40) miles from the English coast, was able to pick up the entire crew of five (5) gliders.

- (f) Discrepancies did arise, especially on one occasion when three (3) motor launches were detailed by Air/Sea Rescue aircraft to proceed to a ditched glider in a certain position, only upon arrival to find the crew already picked up. Fortunately, this only occurred on rare occasions.

(2) Air Control

- (a) Consisting of Spitfire and Walrus aircraft of Air Defense of Great Britain; Hudsons and Warwicks of Coastal Command; Thunderbolts of US Army Air Force.
- (b) Warwicks and Hudsons, engaged on Air/Sea Rescue were very usefully employed because of their long range and durability flying alongside serials on the route out. They were then able to plot and transmit the exact position of aircraft ditching, also go to their assistance in the event of their being no rescue launch in the immediate vicinity. This method was not very efficient in the route back because of aircraft being spread out but Thunderbolts and Spitfires were then at hand to cover a much larger area, in a much shorter time than Warwicks.
- (c) During Operation MARKET, two hundred and five (205) men were rescued from ditched aircraft and gliders.
- (d) The following figures give in detail, the patrols carried out by air/sea rescue service:

Sorties by Spitfires & Walrus of ADGB	148
Long range sorties by Warwicks and Hudsons of Coastal Command	20
Sorties by Thunderbolts of USAAF	<u>83</u>

Total Air Sorties 251.

- (e) A total of 1,243 hours were spent at sea by high speed launches or Air/Sea rescue service.

19. Air Evacuation

a. There was no direct air evacuation of casualties from advanced fields during this operation. Casualties (both British and American) were routed through the normal ground evacuation chain to BRUSSELS where the IX Troop Carrier Command had an airdrome control party, including an air evacuation section on duty. The Troop Carrier Command was directed by First

Allied Airborne Army to support the RAF in air evacuation from BRUSSELS. This was done up to ten (10) planes a day in accordance with standard operating procedures. Casualties were evacuated to RAMSBURY and MEMBURY except for loads which were entirely British, in which case, they were landed at BLAKEHILL FARM. There were no unusual incidents or occurrences during this phase of the operation.

19. Public Relations

a. For this operation, the Public Relations Section of the US Troop Carrier Forces was authorized by the Public Relations Officer, First Allied Airborne Army, to deal directly with the press through existing facilities at Supreme Headquarters (Ministry of Information). Photographic coverage was supplied by detachments from the US Army Pictorial Service.

b. Correspondents assigned to the US Troop Carrier Forces for this operation included:

Robert Frey	United Press
Judson O'Quinn	Associated Press
Sherry Mangan	Time-Life
Graham Miller	New York Daily News
William Stringer	Christian Science Monitor
Gil Robb Wilson	New York Herald Tribune
Tom Hoge	Stars and Stripes
Ed Murrow	Columbia Broadcasting System
Bob Massel	Blue Network
Mr. Andrews	Planet Photos (Acme)
Mr. Candy	Gaumont-British Newsreels

c. To facilitate correspondents, a B-17 aircraft was assigned to the Public Relations Office. This aircraft served as a "flying press-box", and as such, enabled the correspondents to obtain a much better over-all view of the operation than they could otherwise have secured. An Army Air Corps photographer and Mr. Andrews, of Planet Photos, riding in the B-17, made the bulk of the photos published during the initial phases of the operation.

d. Being a combined operation, stories dealing with the activities of the US Troop Carrier Forces were much more acceptable to British papers, due mainly to the fact that numerous British paratroops and gliderborne infantrymen rode with American power and glider pilots. Space received in the British papers was limited, however, compared to the space devoted to the airborne mission carried in American papers -- arising, to a large degree, from the original SHAEF premise, all British correspondents would ride in British planes and American correspondents ride in American planes.

e. A great deal of credit for space received in both American and British newspapers, goes to the Public Relations Officers of the 52nd and 53rd Troop Carrier Wings who facilitated correspondents in every possible way to

assure them of interesting and adequate stores pertaining to Troop Carrier Command and Operation MARKET.

f. Newspaper and wire service correspondents who flew in Troop Carrier planes during the Operation filed exclusive stories to their papers. The photographers were pooled, their pictures being made available equally to American and British services. Mr. Murrow and Mr. Massel, representing the combined American radio pool, recorded an eye-witness account of the D Day operation which was heard later on the Columbia, National, Mutual and Blue Networks in the United States. A pilot, who flew on the D Day and D plus 1 missions told of the operation in an interview on BBC's "War Report". Major General WILLIAMS spoke on the week's airborne mission over the National Broadcasting Company's "Army Hour", 24 September 1944.

g. Stories of the resupply and airlanding missions were released by correspondents of the Associated Press, United Press, Reuters, Press Association (British), Movietone News, and BBC.

h. Round-up stories on the operations were written by Charles Chamberlain and Abe Goldberg of Associated Press, Robert Frey of United Press, and Rupert Denny of the Sunday Chronicle. A complete story, with pictures, on the whole operation was sent to the London representative of Air News Magazine and flown to the United States.

i. A compilation of all newareel footage made by cameramen of the Army Air and Ground Forces was made at the London laboratory of the Army Pictorial Service and shown the last week in September to Allied Staff Officers in London. Almost twenty-thousand feet of film was shot of the airborne operation, of which about five thousand feet was released to newsreels in the United Kingdom and in the United States. The airborne landing film was re-shown at the Curson Street Theater in London on 4 October 1944. The demand for a re-run of the landings "was the heaviest ever received at Army Pictorial" according to officers of that unit.

IV. GLIDER PHASE OF OPERATION

1. The glider phase of Operation MARKET was a highly successful undertaking, considering the number of personnel carried, the amount of supplies landed, and the amount of equipment transported to the battle area. The success of this phase of the operation was the result of careful planning and close coordination with the Troop Carrier Command and the chains of command of the First Allied Airborne Army. Another factor which greatly influenced the success of this operation, was the fact that it was a daylight mission for all glider lifts, thus facilitating the landing problem.

2. Glider pilots, immediately upon landing, reported to the nearest US Command Post. As soon as the occasion permitted, they were evacuated under orders of the US Command Post to Headquarters, US 101st Airborne Division, or Headquarters, US 82nd Airborne Division, for further evacuation by air to the United Kingdom.

3. For some time prior to the actual operation, in fact, immediately following Operation NEPTUNE, Troop Carrier Command had been marshalling gliders at the various fields in its command, anticipating a future commitment of airborne forces. On D minus 1, there were a total of 2474 gliders available to the airborne units, and they were marshalled on Troop Carrier Command fields. This, in itself, represented a great deal of planning. The gliders had to be ferried from the assembly depot at CROOKHAM COMMON to the fields from which they did land on the landing zone. They carried 9566 people or 86% of the troops which took-off. The gliders which did not reach their objective were prevented from reaching the landing zone by enemy fire, and by mechanical difficulty. Transportation, which is the main problem for airborne units, was also delivered by gliders in the form of 705 $\frac{1}{2}$ Ton Trucks, 13 motorcycles and 45 trailers for the $\frac{1}{2}$ Ton Trucks. The bulk of these were landed on D plus 1, D plus 2 and D plus 3. The staggering total of 2,476,594 pounds of equipment and supplies were landed by gliders during this operation. Had the weather and tactical situation allowed, this total would have been much higher. During the operation, gliders were dispatched at the rate of about two (2) per minute.

4. Immediately following the operation, after D plus 6, Troop Carrier Command dispatched a team of officers and enlisted men from the Service Wing of IX Troop Carrier Command to the actual landing zones to make a survey of the gliders in the landing zones with the idea in mind of recovering and salvaging as many as possible. The present plan uses both the glider pick-up and landing strips built by Airborne Engineer Battalions in recovering these gliders. The Engineer Battalions were flown in by gliders and C-47s and are actually engaged in building additional landing strips for the purpose of recovery of gliders and also with a view to using them for landing supplies for combat units in adjacent areas.

V. INTELLIGENCE

1. The A-2 Section began preliminary plans for Operation MARKET in conjunction with the A-3 and A-5 Sections on 10 September 1944.

2. Flak Studies

a. Maps scale 1/100,000. GSGS 2541, sheets 1, 2, 3, 4, and 5; GSGS 4336, sheets 2, 3, and 4, covering the possible routes in and general landing zone areas were posted and individual AA installations plotted with fire circles to aid in determining best routes and turns at DZs and LZs.

3. Photographs

a. From the numerous sorties flown in the area, the IX Troop Carrier P.I. officer selected basic cover of DZ/LZ areas, made up mosaics and through P.I. study of stereo pairs made estimates and recommendations as to capacity and general characteristics of LZs and possible obstructions on or in the vicinity of DZs. Since a large number of basic cover sorties had been flown this work necessitated the handling and sorting of a tremendous number of photographs. Once the DZs and LZs were definitely selected, "blowups" of the mosaics covering specific DZs and LZs were ordered in quantities sufficient for planning, briefing, and to provide each glider pilot with a photograph of his particular LZ. Coordination was maintained with Intelligence and P.I. of 38 Group (British) and photographs exchanged where common interests existed. Original sorties were furnished IX Troop Carrier Command through the Photographic Officer of First Allied Airborne Army. Requests for photo coverage following each days operations were initiated to show patterns of paratroop and glider landings.

4. Maps

a. Operational and navigational maps were provided in scales of 1/500,000 and 1/250,000. Planning maps in scales of 1/100,000, 1/50,000 and 1/25,000 were procured and disseminated to Wings and Groups. Sufficient 1/100,000 maps of the landing areas were included to provide each glider pilot with a detailed map of his particular landing area for use in preliminary study of the area and for use on the ground.

5. During the planning stage of Operation MARKET sources of the latest information on the enemy air and ground order of battle were established and latest information kept up to date both during the planning and operation phases of Operation MARKET.

6. Activities during Operation MARKET

a. Reports of Missions. "Flash" reports were cleared through IX Troop Carrier Command Headquarters to higher echelons and consolidated reports for each days activity were checked with A-3 operational reports for accuracy and completeness of information. "Hot news" reports on "ditching" in channel and other vital information was channeled to proper headquarters.

b. Dissemination of information to lower echelons. Latest available reports on changes in the enemy air and ground situation were disseminated each day by telephone or TWX to A-2's of Troop Carrier Wings and a daily report of the front line and bomb line was dispatched each day, together with a summary of the previous days activities, both air and ground.

c. Preparation and dissemination of photographs of DZs and LZs. When changes in DZs and LZs were made, "blowups" of the areas were disseminated to the particular Wings or Groups involved.

7. Compilation of Final Reports on Operation MARKET

a. Following each days operations, IX Troop Carrier Wing Sections compiled written mission reports accompanied by traces showing where flak and small arms fire were encountered, and indicating pattern of drop or landing as compiled from pilot reports. In addition, photographs were secured following the completion of each glider or paratroop mission.

VI. WEATHER

1. Organization.

a. Weather service is provided the IX Troop Carrier Command by (1) 21st Weather Squadron detachments, one of which is attached to the Command, to each Wing and to each Group, and (2) by the Staff Weather Officers of these units who control the weather detachment of their respective units. Land line weather communications exist at all Troop Carrier bases and the Advanced and Rear Headquarters. The meteorological switchboard at the rear headquarters of Troop Carrier Command was used to disseminate all operational forecasts to the 50th and 52nd Troop Carrier Wings and their Groups and the one at Headquarters 53rd Troop Carrier Wing to Groups of that Wing. Forecasts were telephoned from Headquarters, First Allied Airborne Army to the Advanced Headquarters above-named switchboards.

2. Operation

a. Co-ordination of Forecasts

- (1) Because this operation included both the RAF and USAAF and because there were several headquarters concerned with the weather decision, it was necessary to have close co-ordination in the preparation and issuance of forecasts. The Staff Weather Officer, IX Troop Carrier Command and the Senior Meteorological Officer, 38 Group, RAF, had been designated, in addition to their other duties, Weather officers of the First Allied Airborne Army, and during the greater part of this operation, were at the Headquarters, First Allied Airborne Army. Coordination was maintained from the meteorological section at this Headquarters, First Allied Airborne Army.

b. Conferences

- (1) Meteorological conferences were conducted from the meteorological section at Headquarters, First Allied Airborne Army with all of the major RAF and American forecasting centers in the United Kingdom including the meteorological sections at Advanced Headquarters IX Troop Carrier Command, Headquarters 38 Group, RAF, and Headquarters of the Wings of IX Troop Carrier Command. The schedule of these conferences was as follows:
 - (a) At 1000 and 1600 hours each day with the long range meteorological section of US Strategic Air Forces in Europe - Colonel KRICK.
 - (b) At 0930 and 1530 with the Headquarters (REAR) Allied Expeditionary Air Force.
 - (c) Each afternoon at 1530 and each evening at 1930 with combined American and RAF Meteorological section, Advanced Headquarters at EASTCOTE.
 - (d) In addition to these scheduled conferences, conferences were held, whenever it was desirable, with meteorological sections at Headquarters, Eighth Air Force, Headquarters (Rear) IX Bomber Command, Headquarters, VIII Fighter Command and with ETA at DUNSTABLE. Informal conferences were conducted several times during the day and night with the combined American and RAF meteorological section at the Advanced Headquarters of IX Troop Carrier Command at EASTCOTE so that the senior weather officers at that headquarters and the senior weather officers at First Allied Airborne Army had the same opinion at all times on the weather conditions.

c. Issuance of Forecasts

- (1) The coordinated forecasts were then issued at the following approximate times from meteorological section at Headquarters, First Allied Airborne Army.
- (2) The weather outlook, issued at 1630 each day covering the next four (4) days, was distributed to Commanding General, First Allied Airborne Army and Commanding General and Operations Staff, IX Troop Carrier Command and 38 Group, RAF. Analogues were used to a large degree for this weather forecast and were most helpful.
- (3) The weather outlook for the next days operation issued at H-1800 hours that went to Headquarters of all tactical units concerned down to and including the Groups.

- (4) The operational forecast for the next days operation, issued at H-1400 hours approximately, which went to Headquarters of all tactical units concerned, and any amendments to the operational forecast at 2-hourly intervals, to all tactical units concerned, down to and as far as the Group.
- (5) These forecasts, which were assembled at Advanced Headquarters, IX Troop Carrier Command, were used for two (2) purposes:
 - (a) For briefing the Commanding General and the A-3 Section of IX Troop Carrier Command at their advanced Headquarters, EASTCOTE, and
 - (b) For issue to the weather stations at each tactical Wing and at each tactical Group concerned.
- (6) The first was easily accomplished by personal weather briefings at Advanced Headquarters, IX Troop Carrier Command. The second was accomplished as outlined in the first paragraph of this report.

d. Briefings

- (1) All briefings were based on the operational forecast mentioned in the above paragraph. Since briefings in the Groups varied as to time and place between H-1800 hours to H-0400 hours it was desirable to issue the operational forecast according to the schedule listed above. Briefings in Groups and Wings were conducted by their respective Staff Weather Officers. Briefings at the Advanced Headquarters, IX Troop Carrier Command and 38 Group, RAF, and the briefings at the First Allied Airborne Army were not conducted according to any schedule, but were made upon request by Commanding Generals and Operations people of those Headquarters.

e. Reconnaissance

- (1) Meteorological reconnaissance flights were made at 2-hourly intervals over the areas concerned by aircraft of the 8th Reconnaissance Wing. These flights were made so that reports would be called in by the Weather Officer making the flight to the Meteorological Section, Headquarters, First Allied Airborne Army at H-8 hours, H-6 hours and H-4 hours. Reports from these flights were of great value.

f. Synoptic Weather Information

- (1) During the first six (6) days of this operation there was a slow moving, high pressure system over the area of operations,

giving poor visibilities during a great part of the day with some scattered low stratus. While the weather encountered could not be termed ideal, it would be termed ideal, it would be termed 'above average' in favor of the operation for this time of the year, and small developments that occurred were more often in our favor than against us. The most difficult part of the forecasting which had to be done, was that of timing the dissipation of ground fog and low stratus, and on the last day of the operation of forecasting a clear period in between two
(2) frontal passages.

VII. SIGNAL COMMUNICATIONS

1. During the staging and launching of Operation MARKET, direct talking circuits were installed from the operational headquarters, EASTCOTE, to each of the following headquarters:

1st Allied Airborne Army, ASCOT
British Airborne Corps, MOOR PARK
AEAF, STANMORE
XVIII Corps, OGBORNE ST. GEORGE
1st British Airborne Division, FULBECK
82nd Airborne Division, GREENHAM COMMON
101st Airborne Division, LEICESTER
Polish Parachute Brigade, STAMFORD
50th Troop Carrier Wing, BALDERTON
52nd Troop Carrier Wing, COTTESMORE
53rd Troop Carrier Wing, GREENHAM COMMON
38 Group, NETHERAVON
46 Group, STANMORE

2. Direct teleprinter channels were superimposed on all of the above circuits except to the Polish Parachute Brigade, STAMFORD.

3. During the entire operation no wire facilities were interrupted or suffered any failures.

4. During the Operation, P.U.T. (Permanent Uninterrupted Terminals) circuits were installed from EASTCOTE to command departure points at NORTH FORELAND, BOREHAM and ALDEBURGH. Service was excellent. These channels provided adequate control for all missions.

5. Point to point radio channels were established from EASTCOTE to all units mentioned in paragraph 1, above, except to the Polish Brigade. 400 watt transmitters were used. These nets were silenced and were at "stand-by" to be used only in the event of landline failure.

6. Air-ground stations, 400 watt power, were established at EASTCOTE, NORTH FORELAND and ALDEBURGH. One (1) aircraft in each V of V's nine (9) at-

craft was designated to monitor this channel during the entire flight on each mission. Only a few messages to aircraft in flight were necessary. The net functioned 100%.

7. VHF sets, SCR-522, were installed prior to the operation in each Troop Carrier aircraft. These sets were used exclusively for air-air communications and for VHF homing and airdrome control voice channels. Traffic on these channels was very heavy; some traffic appeared non-essential, however, conversation on the part of some pilots and co-pilots over flak areas does definitely keep morale at a higher level.

8. Radar Results - Rebecca/Eureka (An/APN-2/AN/PPW-1)

a. Turning Points

- (1) Ranges averaged from 20 to 35 miles at all the turning points locations. Beacons were coded for identification as specified in the Signal Annex.

b. DZ/LZ Beacons

- (1) Ranges averaged from 5 to 20 miles. On several instances the first few serials reported no beacon and the following serials would report the beacon at good ranges. This would indicate beacons not being turned on in time. (On several missions there was no time available to get messages to Far Shore to give parties the necessary time date. Parties had to keep watch and upon seeing the serials would immediately go into operation). Some interference with Rebecca operation was reported on D Day. Interference was reported as squitter and high frequency modulated CW. This might very well have been locked pulses from too many Rebecca sets being on. (British aircraft all use the Rebecca rather than just the serial leader).

c. A Eureka beacon was picked up by several serials on D plus 1 operating on channels Baker Charlie but uncoded. Beacon was in the vicinity of ZEVENBERGEN in HOLLAND. Units were informed to be on the lookout for strange beacons. On D plus 6 another beacon was reported in the vicinity of EINDHOVEN. Beacon was operating on channels Baker Charlie and Coded William this time.

d. GEE

- (1) GEE was used very successfully during Operation MARKET. GEE ground stations on the Eastern Chain were beamed so as to give good coverage over the DZ/LZ area. Frequencies Wyoming, 48 mcs. and Quincy, 74.5 mcs. were available on the Eastern chain and frequency Jefferson, 68.5 mcs. on the Channel Chain. Both Chains gave coverage at the DZ/LZ area but the Eastern

Chain gave the better coverage. All units were informed of the fact that better coverage would be obtained from the Eastern Chain when the GEE coordinates were distributed. Some serials using the Southern route operated on the Channel Chain to get good coverage along the route and then changed to the Eastern Chain for the DZ/LZ area. Jamming was encountered in the DZ/LZ area, but was not heavy enough to hamper operations. Reports indicate that frequency Wyoming gave the best GEE results on D Day. On succeeding missions, one day Wyoming would be jammed more heavily and Quincy would give better results and the next day it would be just the opposite.

e. SCR 717-C

- (1) Since there were no BUPs beacons available for Operation MARKET, SCR 717-C operation was confined to search operation only. Serials using SCR 717-C reported excellent operation with no failures. Ranges from 40 to 60 miles were obtained on picking up coastlines. The Northern route offered a perfect scope picture for picking up landfall. SCR 717-C was not used a great deal because of good visibility and weather.

9. Operation MARKET was entirely a daylight operation and the greater part of the serials had very good visibility. As a result, radar was used only for spot checking. When the visibility was poor, radar did its job very well and was responsible for getting certain serials to the DZ/LZ area and back to their home fields. In general radar was used very successfully in this operation.

10. In general, radio facilities aside from the air-ground net were not needed, although, they were available. Several aircraft requested VHF homing and obtained it successfully. Serials received time checks from K69 (IX Troop Carrier Command Station, EASTCOTE). At certain times, due to interference and "skip", the station K69 was reported weak. Several serials reported another station blocking K69. This may have been a German Station as no other station could be found with the call signs employed. A more powerful transmitter was put on the air and some of the interference was eliminated. In general, the air-ground radio facilities were very good.

11. Because of the daylight operation, the only visual aids used were smoke and panels used to mark DZ/LZ area. In most cases all serials reported seeing panels and smoke as scheduled in the Signal Annex.

12. Operational message centers were set up at each tactical unit headquarters. Messages were delivered immediately from the receiving agencies. Necessary message center administrative work was accomplished either on the carbon copies or on the original after it had served its purpose. Immediate delivery of these messages rendered material assistance in keeping the operation running smoothly.

13. Signal supplies for the operation were obtained through IX AFSC. Air transportation was used extensively for delivery. Air transportable SCR-499 sets were sent in to the DZ/LZ areas with all airborne divisions in CG-4A gliders. These sets were used for point to point communication to the rear headquarters of the divisions left in the United Kingdom. The sets performed in an excellent manner.

VIII. SUPPLY

1. Logistical Preparation

a. The tactical plan of Operation MARKET called for the use of the stations at:

FULBECK	LANGAR	BALDERTON
CHILBOLTON	BARKSTON HEATH	FOLKINGHAM
COTTESMORE	SPANHOE	SALTBY
ALDERMASTON	MEMBURY	RAMSBURY
GREENHAM COMMON	WELFORD	BOREHAM
CHIPPING ONGAR	CHALGROVE	

LANGAR and FULBECK had been released to the British and BALDERTON was in the process of being released at the time when units of the 50th Troop Carrier Wing moved into them. The occupation of CHILBOLTON was an initial one for this command. It was necessary, on comparatively short notice, to establish the essential housekeeping equipment and personnel at these four (4) stations in order that tactical air echelons of the Troop Carrier Groups would be in a position to be housed and messed properly, as well as be in a position to perform the necessary maintenance on aircraft. It was necessary to move certain station complement personnel, personnel from fire fighting platoons and general and special purpose vehicles to these stations, in order to place them on an operational basis. All fields were on such a status within twelve (12) hours after the A-4 Section had received notice of the fields that were to be used. Movement of the tactical air echelons of the 50th Troop Carrier Wing to staging areas on fields away from their home station, establishing themselves on a self-sustaining basis in less than twenty-four (24) hours, being ready to perform major tactical operations and make battle damage repairs, again demonstrated the tactical mobility of Troop Carrier Command units.

b. In the preparation of airfields for Operation MARKET, it was necessary to construct glider marshalling areas at FULBECK, COTTESMORE and BARKSTON HEATH. The weather conditions had been such that the marshalling areas on those fields had become soft with the result that it was necessary to lay pierced steel plank. Although the operation was postponed a number of times, an original deadline of forty-eight (48) hours had been given, during which to prepare these three (3) fields. Through the services of the 878th Airborne Engineer Aviation Battalion, the work was completed in less than the time allotted. Particular emphasis is given to the fact that the pierced steel plank which was used on these stations had been previously laid

on other fields, making the work extremely difficult for the Airborne Engineers, considering the time allotted to lay the plank.

c. Previous to any tactical operation, it has been necessary to fully equip all combat personnel of both powered aircraft and gliders. Generally speaking, the combat crews of powered aircraft require very little additional equipment from one operation to the next in order to place them in a position to meet their tactical role. However, a very difficult problem is presented in connection with glider pilots. New glider pilots are assigned to tactical units from the United States and do not have all authorized individual equipment; glider pilots are transferred between tactical units, often without authorized individual equipment; and glider pilots returning from previous operations are short of many items of authorized equipment. Due to the arrival of new glider pilots and the transfer of glider pilots between tactical units, it was learned that on D minus 2, considerable equipment was needed for this personnel. Such equipment included flak pads, flak suits, flak helmets, submachine guns, pistols and grenades. The cooperation received from SOS Depots and the Base Air Depot Area, Air Service Command, US Strategic Air Forces in Europe, was such that on D minus 1 all shortages of equipment had been obtained and each glider pilot completely equipped with all authorized individual equipment. The following consolidated list of shortages of Ordnance equipment had been received from the three (3) Troop Carrier Wings on 7 September 1944:

Flak Pads	1000
Flak suits	425
Flak helmets	500
Pistols	95
Pistol clips	750
Submachine gun clips	1250

This equipment was in the hands of tactical units on 12 September 1944.

d. The housing of Airborne units on stations of this command was handled entirely through the SOS Liaison Section attached to the A-4 section of this headquarters. This section took care of all housing necessary to handle the personnel involved. Somewhat of a problem was created, due to the series of postponements of the contemplated D day, resulting in the drawing, returning and re-drawing from depots of approximately 15,000 rations.

e. For Operation MARKET it was necessary to procure approximately 1000 battle dressing kits and 1500 first aid kits, aeronautic. Battle dressing kits were improvised as a substitute for first aid kits, aeronautic, for use in gliders. The containers for the battle dressing kits were improvised by the Parachute Department of the Air Depot. In spite of the fact that the actual shortage of these medical kits was not known until D minus 2, sufficient were available for the operation, again due to the cooperation from US Strategic Air Forces in Europe.

2. Air Corps Supply - Engineering & Maintenance

a. The question of whose responsibility it would be to furnish loading and lashing equipment in aircraft and gliders, was settled at a meeting held with the G-4's of the Airborne Divisions and members of the A-4 Section of this headquarters, prior to the Operation. At this meeting it was determined that:

- (1) Troop Carrier units would be responsible for furnishing all lashing rope in powered aircraft.
- (2) Airborne Divisions would be responsible for all loading and lashing equipment in gliders.

To meet this problem, sufficient rope was furnished by this command to the Airborne Divisions, so that each glider would have an ample supply of lashing rope. (In future operations, the Airborne Divisions would be responsible for supplying their own loading and lashing requirements for gliders). In addition, 15 lengths of rope 5/8" x 15' were placed in all powered aircraft.

b. It has been the endeavor of this headquarters to equip all CG-4A gliders with a protective nose, namely either Griswold or Corey Crash Nose. 2400 kits were ordered from the United States in February, 1944 and a constant follow-up system has been in force in order that these kits would be made available in this theater. For Operation NEPTUNE, approximately 300 gliders were equipped with the Griswold Nose. For Operation MARKET approximately 400 gliders were equipped with either the Griswold or Corey Nose protective crash installation. The Corey Nose installation is not as satisfactory as the Griswold type of nose protection, but information has been received that all future shipments will be of the Corey type modification.

c. The desire to install De-acceleration Parachutes on CG-4A gliders was not as prominent for Operation MARKET. The delaying factor of the installation was due to the fact that shipments from the United States had not been as scheduled. For this operation, approximately 900 gliders were equipped with parachute arrestors.

d. From experience gained in Operation NEPTUNE, a comprehensive picture was obtained of the overall command requirements covering rivets and rivet guns used in the repair of battle damage. Authorization had been received for the procurement of one additional rivet gun per Troop Carrier Squadron. Through both British and American sources, sufficient rivets and guns were available for tactical units so that each Squadron was in a position to perform first, and the majority of second echelon type of battle damage repair. The Service Teams performed some second, all third and some fourth echelon type of battle damage repair.

e. In spite of the fact that the 150 sets of British Paratroop Modification Sets had not been returned from Italy, after use in Operation DRAGOON,

tactical aircraft of this command were in a position to perform any required commitments with British Airborne Units used in Operation MARKET.

f. A foremost problem in any tactical mission is the availability of sufficient gasoline and oil, as well as fuel servicing unit, to fully service every aircraft on any particular field. On some fields, tactical units performed only one mission per day, causing no problem as far as refueling was concerned. On other fields, however, this section was confronted with the problem of refueling some 80 aircraft in a turn-about in a period of from two to three hours. Prior to Operation MARKET, all Groups had sufficient refueling units to refuel all aircraft within three hours so that they would be in a position to perform another mission. To arrive at this status, it was necessary to procure on load a large number of refueling units from IX Air Force Service Command and US Strategic Air Forces in Europe. To add to the problem of a turn-about, was the fact that all refueling units of the four (4) Groups of the 50th Troop Carrier Wing were shipped to the Far Shore two (2) days prior to the operation. The load of refueling units from the 52nd Troop Carrier Wing helped to relieve this situation. It is interesting to note that the fuel servicing units arrived at the fields used by the 50th Troop Carrier Wing approximately 30 minutes after the arrival of the aircraft from FRANCE, even though this section had received only a five (5) hour notice that the aircraft were arriving at the Northern fields. Each station used by units of this command had available storage facilities for 144,000 gallons of gasoline, plus 2500 gallons of aviation oil.

g. After Operation NEPTUNE, plans were made that for future operations, aircraft equipped with the Model 80 glider pickup mechanism would be used to salvage gliders from the Far Shore as quickly as Service Teams could be made available on the Continent to repair gliders and make them airworthy. 108 C-47 aircraft, equipped with this mechanism, had been shipped from the United States. 56 of these aircraft were assigned to the tactical squadrons on the basis of 1 per squadron, and from the balance of the aircraft the pickup mechanism was removed and stored in Technical Supply.

h. The training of personnel to operate the Model 80 glider pickup mechanism required the use of these installations constantly. Such use created a maintenance problem and due to the lack of spare parts to maintain them, the supply problem became acute. At the time the aircraft had been received in this theater, no repairs parts had been shipped from the United States for the pickup mechanism. Although this section had taken action to obtain the necessary spare parts to maintain the pickup installations, it was learned that no contract for spare parts had been let in the States. Therefore, in order to maintain as much pickup mechanism as possible, it was necessary to cannibalize many of the units. Prior to operation MARKET it was decided to assemble all of the cannibalized units at the Service Wing Depot and to rebuild as many as possible. This was done and a total of six (6) complete units were rebuilt. Of the balance of the aircraft in this command which had pickup mechanism installed, 12 were transferred to the RAF, based on a directive received from US Strategic Air Forces in Europe. At the time of Operation MARKET, there remained only 15 aircraft in this command equipped with Model 80 glider pickup mechanism.

i. The assembly of CG-4A gliders at CROOKHAM COMMON averaged about ten (10) to fifteen (15) gliders per day. Due to the very large commitments required by Operation MARKET, it was necessary to step this production up to a maximum capacity. Through the efforts of the Troop Carrier Service Wing (Prov), this production was stepped up to fifty (50) gliders per day and on one particular day, reached a maximum of one hundred (100) gliders.

j. Approximately one month prior to D day, a "red lined" Technical Order was received, grounding all C-47 aircraft having a particular type of engine mount which was claimed to be defective. A survey of this command showed that sixty-three (63) aircraft were affected by this grounding order. To keep these aircraft grounded would materially affect the number of aircraft which could be made available for the Operation. It was learned that there were no replacement engine mounts in this theater and that it would be impossible to obtain them from the United States in time to make the necessary changes. A thorough check was made of each of the engine mounts alleged to be defective, but no indication of failure was noted. Since the aircraft time on aircraft involved averaged between 300 and 400 hours and no failure had occurred during this period, it was agreed that the restriction would be waived until the operation was completed. Instructions were so issued from this headquarters, authorizing removal of the grounding condition until such time as the new engine mounts were received from the United States.

k. On the contemplated Operation TRANSFIGURE, a decision was made to use two (2) Bolero tanks per aircraft. In order to avoid fire hazards, it was necessary to procure and install in each aircraft one CO₂ fire extinguisher. This fire extinguisher was to be used to purge the auxiliary fuselage tanks prior to the time the aircraft would arrive over the DZ. The supply of CO₂ bottles was extremely short in this theater. In spite of the fact that Bolero tanks were not used in Operation MARKET, a source of supply was established, so that a total of 564 CO₂ bottles were made available for this command for immediate requisition, in case the situation demanded it.

l. One week prior to the Operation, information was received from British Airborne sources that some of the 9'9" strops used when dropping paratroopers were defective. This required an immediate physical inspection of all strops installed in aircraft of this command and the replacement of any defective strops.

3. Battle Damage Incident to Operation MARKET

a. All Groups, with the exception of the Groups of the 50th Troop Carrier Wing, had sufficient personnel, service and tactical, available to repair most types of battle damage. However, groups of the 50th Troop Carrier Wing were in a peculiar position, in that the largest percentage of their equipment had been shipped to the Far Shore. It was, therefore, necessary that Mobile Repair and Reclamation Units from the Service Wing be assigned to these tactical groups to assist them in the repair of battle damage.

b. During the actual operation, battle damage in the 53rd Troop

Carrier Wing was such that it was necessary to move other Mobile Repair and Reclamation Units from the Air Depot to support the tactical units.

4. Reclamation of Gliders on the Far Shore.

a. The problem of salvaging gliders on the Far Shore, following Operation MARKET, has been handled by the IX Troop Carrier Service Wing (Prov).

b. The overall condition of the gliders and the terrain was such that following a survey, it was determined to construct a temporary landing strip to be used in the removal of the gliders. The ground was such that the engineering problems involved were mainly filling in of ditches, construction of drains, removal of certain soft ground and the installation of steel matting. The Corps of Engineer Section of this command made arrangements with the IX Engineer Command to use the 876th Airborne Engineer Aviation Battalion to construct the strip. In addition, this section made arrangements with the 12th AGHE (British) for the use of some heavy equipment for earth moving. Originally, the Royal Engineers agreed to allot 100 tons of square mesh track for the construction of the air strip. However, it was later learned that this organization required the matting for work of higher priority.

c. Arrangements were then made with the 2nd TAF to obtain 150 tons of square mesh track, which was located at a depot near BAYEAUX. Although transportation of the square mesh track presented somewhat of a problem, it was trucked from the depot to strip B-17, then flown by aircraft of the 50th Troop Carrier Wing to strip B-76 and then transported by trucks to the 876th Airborne Engineer Aviation Battalion some 30 miles, to IZ "W". The time of construction of the landing strip was one week.

d. The first gliders were lifted from the landing strip on 20 October 1944 by aircraft of the 61st Troop Carrier Group. In spite of the heavy down-pour of rain, the strip was in good condition and the gliders were flown away without any delay.

e. The events of this day represented the start of the actual recovery of gliders from the Far Shore to be returned to the United Kingdom.

IX. PATHFINDER ACTIVITY

1. Both Airborne and Air Corps Commanders felt that Pathfinders should be employed in Operation MARKET, but due to the fact that the operation was to take place during daylight hours, it was decided that a minimum number of personnel would be committed with only enough time to set the equipment into operation prior to the arrival of the main serials. Final decision was that two (2) teams each consisting of one (1) officer and nine (9) enlisted men, be committed to each DZ, twenty (20) minutes prior to the arrival of the main serials.

2. All officers and men, with the exception of one (1) enlisted man, had participated in a combat pathfinder operation in Normandy on 6 June 1944 and

had volunteered for a second pathfinder mission.

3. Preparation and briefing was very smooth due to past experience. Rations, ammunition, smoke, panels, et cetera, had been predrawn and were stored in the area occupied by the group several weeks prior to the assignment of the mission. Pilot-Jumpmaster conferences were held as soon as DZs were assigned. Pin-points were selected by jumpmasters and pilot-navigator teams. Copies of the Division and Regimental Field Orders were furnished to jumpmasters who studied same in conjunction with maps for operation. Enlisted men were briefed twenty-four (24) hours prior to the take-off. All personnel were restricted to the base from receipt of first orders until return of aircraft from the mission. Each officer and NCO was issued a 1/25,000 scale map of the DZ area. All personnel carried copies of 1/100,000 maps of area of operations. No maps were marked. Air Corps-Airborne teams had been working together as such for approximately six (6) months. Utmost confidence and coordination had been established.

4. The final pathfinder briefing for aircrews and paratroops was held at 0830, 17 September 1944 and immediately following, all personnel proceeded to their assigned ships.

5. Mission of Teams "1" and "2"

a. Team "1", composed of headquarters personnel from the 501st, 502nd Parachute Infantry and of the 377th Field Artillery Battalion, commanded by Captain FRANK L. BROWN, 501st Parachute Infantry, was assigned to ship 964. (1st Lt. Bob Centers, Pilot).

b. Team "2", 501st Parachute Infantry, commanded by 1st Lt. Charles M. Faith, 501st Parachute Infantry, was assigned to ship 981. (2nd Lt. Shauvin, Pilot).

c. The mission of these two (2) teams was to drop upon and mark DZ "A" for the main effort, preceding said group by twenty (20) minutes. Teams took off at 1040 from CHALGROVE airdrome, circled, and followed a course generally East to the Coast. Somewhere over the channel a P-47 was contacted which escorted the flight to the coast of France before taking leave. No escort was seen from the time our ships reached the coast until time of jump. At a point where the British spearhead was deepest into enemy territory, our ships bore North and continued at 1500 feet. Orange smoke was observed marking the front lines and the two (2) ships speeded to 180 mph. Very heavy anti-aircraft fire was received and at 1232, in the vicinity of Ratie, Belgium, ship 981 fell flaming into a steep dive, hit very badly in the left engine and wing tank. Four (4) chutes were seen to leave the door before the ship crashed, exploding in a sheet of flame.

d. Ship 964 continued through very heavy flak belts, taking no evasive action, until the railroad, running generally West to East into VECHEL, was observed; at this point the pilot swung to a course parallel to the tracks, slowed the ship to a stand-still over the DZ and jumped the Pathfinder Team

on the exact spot desired. Time was 1244 plus 50 seconds.

e. No immediate enemy resistance was encountered upon the DZ, allowing the team to put all navigational aids into operation in very little time. Assembly was not necessary since dispersion was very slight, due to excellent drop speed. The Eureka was assembled and in operation in one (1) minute, the panel "T" and the panel letter "A" took no more than two and one half (2½) minutes. Some difficulty was encountered with the GRN-4 antenna, but this set was functioning within five (5) minutes. (GRN-4 antenna has been modified and faults eliminated since operation). Red smoke was employed when the serials came into view.

f. The first serial, due at 1304, arrived on course three (3) minutes late, at 1307, and dropped on the reserve side of the regimental objective, VECHHEL. The second and third serials, both three (3) minutes late, arrived at 1311 and 1315 respectively, dropping on the Western half of the DZ. The Eureka and GRN-4 were left in operation twelve (12) minutes after the last serial arrived. No stray aircraft appeared.

g. Since the mission of the Pathfinder Team was finished, (there being no glider landings or resupply drops scheduled on DZ "A"), the team made it's way to VECHHEL where it established a road block in the main square with two (2) men, cleaned a street of buildings with three (3) more, dispatched the remaining four (4) men to take a bridge. Friendly troops were contacted within a half-hour. Team "1", after the initial drive, was used at various times as local security group, prison guards and as combat patrols.

6. Mission of Teams "3" and "4"

a. Team "3", 502nd Parachute Infantry, commanded by 2nd Lt. Gordon DeRamus, was assigned to ship 885. (1st Lt. Dobbins, Pilot).

b. Team "4", 506th Parachute Infantry, commanded by 1st Lt. Gordon O. Rothwell, was assigned to ship 096. (1st Lt. Gaudio, Pilot).

c. The mission of these two (2) teams was to drop upon and mark DZs "B" and "C" for the main effort and subsequent glider landings and resupply drops. The teams took off the CHALGROVE airdrome at 1040 with ship 096 in the lead. Ships accompanied 964 and 981 over the Channel. Upon reaching the coast the flight circled twice to kill time and then flew a course identical to that of Teams "1" and "2".

d. Upon crossing enemy lines very heavy flak was encountered until the jump. No evasive action was taken but the planes speeded to 180 mph. Since DZs "B" and "C" were, in reality, one large series of fields, the teams dropped side by side at 1255, pin-pointed exactly on the location desired. As in the case of Team "1", assembly of men was not necessary since dispersion was slight. Pilots slowed ships almost to stall (85-90 mph) for jump.

e. Slight enemy resistance was encountered, but it was overcome and did not slow the teams in their mission. The Eureka was in operation in less than one (1) minute and no difficulty was encountered in setting up panels and CRN-4, all of which were in readiness within four (4) minutes. The main serials all arrived on course three (3) minutes late at 1319, 1322 and 1325. Since the LZs were adjacent and three (3) serials were due on each, it was difficult to distinguish between them; however, the main effort experienced an exceptionally good drop, all troops hitting the LZ and assembling without hesitation.

f. Pathfinder personnel remained upon the LZ to guide in glider landings and resupply aircraft for six (6) days, at which time they were relieved of these duties. On D plus 7 the entire group of pathfinders were again placed together under Captain Brown and performed various duties under division control.

7. Resupply for Pathfinders

a. Due to the weight and bulk of navigational aids carried down by the pathfinders, it was impossible for them to carry in enough smoke and batteries to provide continuous operation of all aids for subsequent landing of gliders. This problem was presented to the CO, IX Troop Carrier Command Pathfinder Group (Prov) who immediately ordered a resupply mission to be flown on D plus 1 to provide necessary essentials. This resupply, consisting of a complete CRN-4, extra batteries for both Eureka and CRN-4, plus additional smoke was dropped on D plus 1 by 1st Lt. Burkhardt from ship 086. The equipment landed approximately twenty (20) yards from the Eureka on which the aircraft was homing.

X. BRITISH ACTIVITIES DURING OPERATION MARKET

1. During the early days of the operation, this command encountered much difficulty in obtaining information as to the tactical situation in the battle area of Northern HOLLAND. The AOC, 46 Group, RAF, made a special trip to HOLLAND to bring back this information. It will be interesting to read the notes of A/C DARVALL regarding his visit. (See ANNEX NO. 6)

2. Glider Phase

a. The British phase was conducted by 38 and 46 Groups, RAF, working in close cooperation with IX Troop Carrier Command.

b. The two (2) commands coordinated together in arranging the time schedule and the route to be used and followed; 38 and 46 Groups following the Northern Route, which was used because it was the shortest and most convenient route to their LZs.

c. A great deal of the accurate information concerning the RAF phase of this operation is lacking because of the difficult tactical situation that existed in their area of operation prior to, and since their withdrawal from ARNHEM.

XL. STATISTICAL SUMMARY

1. Based on previous operations, plans had been made by the Statistical Control Office for the procurement of information prior to, during, and at the conclusion of the operation under consideration. Aircraft and Combat Crew Status reports were in effect on a daily basis and arrangements had been made for the reporting of combat crew casualties. Aircraft loss figures were being reported on the Daily Aircraft Status Report and were to be kept up to date by that report. The USAAF Form 34-C report provided for an accurate statistical report of the operation from Group level and covered all phases such as number of aircraft dispatched, abortive, completing mission and a detailed breakdown of personnel and material lifted, by mission. The information so reported served as an adjunct to Flash Reports and as a source of information for final summarization of the operation. As a result of preparations made, this Office was able to meet virtually all requests for information on Aircraft and Crew Status and for information on the results of the mission from a statistical viewpoint.

2. The following are statistical summarizations prepared by Statistical Control and give a complete picture of Troop Carrier operations, from a facts and figure viewpoint.

	<u>NEPTUNE</u>	<u>DRAGON</u>	<u>MARKET</u>
Total aircraft dispatched	1662	766	3990
Total aircraft destroyed & missing	41	1	91
Percentage of aircraft abortive	4.6%	.8%	8.9%
Percentage of aircraft destroyed & missing	2.5%	.1%	2.3%
Percentage of aircraft damaged	27.0%	.7%	19.1%
Aircraft sorties	1606	760	3791
Total gliders dispatched	512	316	1899
Percentage of gliders not released at LZ	1.6%	1.2%	3.9%
Glider sorties	512	312	1775

NUMBER OF TROOPS DROPPED OR LANDED

	<u>NEPTUNE</u>	<u>DRAGON</u>	<u>MARKET</u>
Aircraft	13215	4784	20915
Gliders	<u>4047</u>	<u>2235</u>	<u>9566</u>
TOTALS	17262	7019	30481

SECRET

STATISTICAL REPORT ON OPERATION MARKET
G L I D E R S

<u>D A T E</u> Sept. 1944 <u>DAY</u>	Dispatch- ed	Released at IZ	Not Released at IZ	Troops not Landed on Object ive	Troops Landed on Object ive	No. of Artill- ery Wea pons Landed	No. of Jeeps Land- ed	Lbs. of Combat Equip. & Supp- lies Landed	Flying Time Hours	Sorties
17 D Day	120	106	14	21	499	8	88*	170583x	375	119
18 D 1	904	868	36	193	4209	64	366**	1119721 xx	2629	888
19 D 2	385	213	172	924	1386	61	116s	490010 xxx	1128	286
20 D 3										
21 D 4										
23 D 6	490	448	42	294	3472	52	135ss	696280	1553	482
25 D 8										
26 D 9 X										
29 D 12 X										
30 D 13 X										
TOTAL "MARKET"	1899	1635	264	1432	9566	185	705	2476594	5685	1775

NOTE: z - 340 gallons of gasoline landed
x - 640 gallons of gasoline landed
xx - 520 gallons of gasoline landed
s - 15 trailers landed

* - 3 motorcycles landed.
** - 9 motorcycles & 27 trailers landed
xxx - 25 gallons of gasoline landed
ss - 1 motorcycle and 3 trailers landed

SECRET

STATISTICAL REPORT ON OPERATION MARKET

A I R C R A F T

<u>D A T E</u> Sept. 1944 <u>DAY</u>	Dispatch- ed	Comple- ting Mission	Abor- tive	Miss- ing & Des- troy- ed	Damag- ed	Troops Drop- ped on Object ive	No. of Jeeps Land- ed	No. of Artill- ery Wea- pons Dropped	Lbs. of Combat Equip. & Supp- lies Dropped	Flying ing Time Hrs.	Sorties
17 D day	1174	1150	24	35	279	16320		278	1008504	5991	1172
18 D 1	1031	999	32	22y	204	2011			95741	5378	1015
19 D 2	445	243	202	20	172				142520z	2121	321
20 D 3	356	355	1		6	125			933376	1641	355
21 D 4	177	128	49	5	24	998			198181 ^{zz}	797	133
23 D 6	531	489	42	9	76	556			52399	3091	525
25 D 8	34	34							97500	177	34
26 D 9 X	209	209			1	882	134p		757425m	1267	209
29 D 12 X	11	5	6			20			32125	42	5
30 D 13 X	22	22				3			112732	105	22
TOTAL "MARKET"	3990	3634	356	91#	762	20915	134	278	3430503	20610	3791

NOTE: y - Includes aircraft 42-93098, 439th TC Gp,
no definite information.

p - 73 trailers and 31 motorcycles landed.

- Based on Form 34-C reports revised as of
30 September 1944.

zz - 4486 gallons of gasoline dropped.

m - 3374 gallons of gasoline landed.

X - This mission all aircraft landed on
Strip, GRAVE, HOLLAND

SUMMARY OF AIRBORNE OPERATIONS FOR "MARKET"
38 AND 46 GROUPS, RAF

DATE	TASK	NO. OF SORTIES	NO. OF A/C MISSING	NO. OF A/C DAMAGED BY FLAK	NO. OF A/C DAMAGED BY FIGHTER	NO. OF A/C SUCCESSFUL	NO. OF A/C UN- SUCCESSFUL	REMARKS
Sept. 17 (Day)	Pathfinder Gliders	12 358	Nil Nil	1 6	Nil Nil			No opposition from fighters and flak opposition negligible
Sept. 18 (Day)	Resupply Gliders	370 33 297	Nil 2 1	7 14 30	Nil Nil Nil	331	39	Good fighter cover. No opposition from fighters and flak opposition consider- able
Sept. 19 (Day)	Resupply Gliders	330 165 44	3 13 Nil	44 97 9	Nil Nil Nil	306	21	No opposition from fighters. Flak con- siderable. Fighter cover bad.
Sept. 20 (Day)	Resupply	209 164	13 9	106 62	Nil Nil	185 152	11 3	Low fighter cover poor. No enemy figh- ters. Flak consider- able
Sept. 21 (Day)	Resupply	117	23	31	7	92	3	Interception by enemy fighters. Fighter cov- er poor. Intense flak
Sept. 23 (Day)	Resupply	123	6	63	Nil	115	2	Slight enemy fighter activity. Flak intense
TOTALS		1313	54	313	7	1181	79	

TOTAL COMBINED SUMMARY

	Total a/c Involved	Total Gliders Involved	Sorties Flown	Troops Dropped on Objectives in a/c and Gliders	Rounds of Combat Equip- ment and Supplies Drop- ped by a/c and gliders.	Missing a/c
AMERICAN	4242*	1899	5803**	22347	7951097***	96****
BRITISH	2018	701	1944	4731	5631030	74
TOTALS	6260	2600	7747	27078	13582127	170
(*) Includes 252 B-24 aircraft used in resupply. (**) Includes 246 B-24 aircraft completing resupply mission. (***) Includes B-24 resupply mission. (****) Includes 6 B-24 aircraft of Eighth US Air Force.						

COMBAT CREW CASUALTY REPORT

UNIT	Pilot				Co-Pilot				Navigator				Radio Oper				Crew Chief				TOTAL CREW CASUALTIES	Glider Plt			
	K	M	W	I	K	M	W	I	K	M	W	I	K	M	W	I	K	M	W	I		K	M	W	I
	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I		I	I	I	I

RECAPITULATION

LEGEND

KIA - Killed in action
MIA - Missing in action
WIA - Wounded in action
IIA - Injured in action

Combat Crew Personnel
Non-combat crew Personnel
COMMAND TOTAL

KIA	MIA	WIA	IIA	TOTAL
41	215	73	29	358
2	5	1	0	8
43	220	74	29	366



Sky darkened with parachutists indicating striking
force of Airborne Army

XII. OBSERVERS REPORT

1. In order to appreciate the experiences encountered by Troop Carrier crews and Airborne units while performing an operation of this kind, an observer report is included as a point of interest. The observer who jumped as a paratrooper on D Day relates his experiences as follows:

"I jumped with the 502nd Parachute Infantry. We took-off from GREENHAM COMMON at 1040 hours and arrived over the DZ at 1338 to 1340 hours. The weather was hazy, with cloud formations from 1000 to 3000 feet and visibility averaging around three (3) miles. Over the Continent, the clouds lifted but the haze remained and the visibility was about the same.

Flak started coming up as soon as we crossed the lines and started over enemy held territory. The flak was spotty, varying from light to medium and from medium to heavy and I believe this can be attributed to the air support having eliminated many of the flak positions prior to our arrival. The serial I rode in was one of the last to cross the target, so I interrogated personnel who jumped from the earlier serials and also talked to a power pilot, Captain R. P. HANNAH, who had successfully landed his C-47 on the DZ and they all said that the flak was quite heavy on the way in. I believe, however, that most of the flak was encountered after the troopers had jumped and the ships were turning around and starting back. The area to the West of the line of flight - HEPPEN-VALKENSWAARD-EINDHOVEN was quite strongly held and the flak particularly heavy MG and 20-mm cannon, was probably intense. There were four (4) C-47s down on the DZ, two (2) burning and two (2) crash landed and unburned. Investigation proved that the crews of the two (2) unburned ships were unhurt. Information, tail numbers, et cetera, on these ships has been given to operations.

The drop was excellent. The wind was about 5 miles per hour and both regiments, the 506th on DZ "B" and the 502nd on DZ "C" had perfect drops. Upon landing, I proceeded to ST. OEDENRODE with the 1st Bn, 502nd and from there attempted to go North to DZ "A", the 501st landed there, to see what sort of a drop they had, but enemy activity prevented this at that time.

There was little or no opposition directly on DZ "B" or "C" although it was reported that eight (8) tanks (German), MK IVs or MK Vs, had been encountered by the first troops to land. These tanks were driven off by the air support and two (2) of them destroyed. There was also some mortar fire falling on the DZ from enemy positions in the vicinity of BEST, but it did very little damage.

The 506th moved South from the DZ to the town of ZON, but failed to get the bridge intact because it had been previously prepared for demolitions and when the Germans saw us coming down they waited only long enough to get across the bridge and then destroyed it. The 506th crossed the canal on the wreckage of the destroyed bridge, moved on toward EINDHOVEN and captured it

early in the afternoon of D plus 1. In the meantime, the Parachute Engineers removed the wreckage of the destroyed bridge and started construction on a new one.

Early in the morning of D plus 1, I made another attempt to get through to the 501st and this time was successful. The enemy had pulled out, leaving two (2) unmanned physical road blocks on the main road between ST. OEDENRODE and VECHTEL and these were circumvented by taking back roads. By the time I returned, the Dutch underground had them removed. I was apparently the first one to get through to the 501st for they had no information of the situation to the South. The 501st had also a good drop, but they did not drop, in either case, on the LZ. The two (2) battalions that were to drop South of the canal at VECHTEL, dropped about 2000 yards short of the right area, but they were all together in one place. The battalion that was to drop North of the canal dropped North of the canal, but at KASTEEL and not at VECHTEL. However, they were not scattered and their operations were not seriously hampered once they got oriented. The situation at VECHTEL seemed to be well in hand. The bridges were intact and one was being reinforced to increase its load limit from a thirty-two ton capacity to a capacity of sixty tons. I returned to ZON that afternoon and after observing the glider landings, proceeded to EINDHOVEN.

The glider landings were excellent, but it appeared from my position that the majority of them were landing too far to the West of the area and as a result, were coming under fire from enemy positions in the vicinity of BEST. The 502nd was engaged in extremely heavy fighting in this area and had been subjected to two (2) heavy counter-attacks. The glider pilots, of course, had no way of appraising this situation. I do not believe that many of the gliders will be in a sufficient flyable condition to be snatched off the LZ. The soil is soft, sandy, loam under cultivation and when the gliders touched down, their wheels were either torn off or they dug in so deeply that their bottoms were badly mauled.

Early in the afternoon of D plus 1, a British recon car reached the South bank of the canal at ZON and this was our first contact with the British. I arrived in EINDHOVEN at about 1600 hours on D plus 1, at this time it was partially occupied by the 506th and at about 2200 hours the first British tanks entered the city. The following day, D plus 2, I hitch-hiked to BRUSSELS arriving there about 1700 hours. I returned to NORTHOLT the following day, D plus 3, in an RAF C-47.

2. The following is an extract copy of a letter from Brigadier General JAMES M. GAVIN, Commanding General of the 82nd Airborne Division to Major General PAUL L. WILLIAMS, Commanding General, IX Troop Carrier Command, dated 25 September 1944.

Dear P. L.:

First I would like to point out that the mission assigned the Division required it to land and seize bridges over the WAAL River, the MAAS River, and the WAAL-MAAS canal and to seize, organize and hold the GROESBEK-NIJMEGEN hill mass dominating these bridges. The area was occupied and well held by the Germans. The accomplishment of our mission required, above all else, precise and accurate troop carrier delivery, as well as aggressive, determined action on the ground.

The D Day parachute landings, without exception, were the best in the history of this Division. The accuracy, altitude and speed during drop were considered ideal by all participants.

The Pathfinder team landed on time on DZ "O" exactly as planned. Except for the fire of a few snipers, who were hardly more than a nuisance, there was no enemy reaction. They set up their equipment and proceeded to carry out their mission as planned.

The 504th Parachute Infantry, in order to accomplish its mission, arranged several DZ's within its DZ "O" area. One was for the drop of a company West of GRAVE. The others were separate battalion drops East of GRAVE. These drops were made very accurately. No men were drowned by being dropped in the River. Despite the flak, the pilots kept their formations and flew the troops into their specified areas. The regiment seized the GRAVE bridge in a matter of hours.

The 505th Parachute Infantry dropped Southeast of GROESBEK. There was considerable flak on their DZ. A number of ships were hit in the approach. Battalion Commanders stated that formations were kept, drops were made accurately and that, in their opinion, they were the best drops made in the history of their units. Initial parachute landings wiped out the flak crews on the DZ's promptly and there were surprisingly few personnel casualties from flak.

The 508th Parachute Infantry landed Northeast of GROESBEK and went thru probably more flak than any other unit. Two ships were shot down in the DA. Formations were maintained and accurate delivery accomplished, by the Troop Carrier pilots. In the opinion of the Regimental Commander, it was the best drop the regiment has ever had.

Glider landings followed the parachute landings on D Day exactly on schedule and as a result of the elimination of the ground flak crews by the landing parachutists gliders were landed under excellent conditions and there was little loss except that caused by terrain hazards.

The D plus 1 glider landings were made on LZ's "N" and "T". Early on the morning of D plus 1 the Germans launched a strong attack against the 82nd Division's area from the REICHSWALD Forest. A mid-morning counter-attack by the Division drove the Germans to the approximate line of the Forest, thus driving them from the LZ but not denying them the opportunity to place considerable flak over it and small arms fire upon it. A message was sent back to the rear base in an effort to direct the pilots to land on the high ground along the Western portions of the LZ which was free of enemy fire. It was considered too late at this time to attempt to brief the pilots on a new LZ, and if the message, as sent, had reached all the pilots, I believe it would have accomplished its purpose. The tugs and gliders arrived during considerable flak and ground fire. Those landing on the west side of the LZ's generally landed unscathed. Those that landed on the portion near the REICHSWALD Forest were generally pretty well shot up. For some unexplainable reason, twenty-five (25) gliders of the 319th Field Artillery continued over the LZ beyond the REICHSWALD Forest and landed about five (5) miles into Germany. I was in GROSEBECK myself at the time and observed their flight. Several hundred gliders were landing on the proper LZ and the enemy fire from the REICHSWALD Forest was very heavy. Despite this, they continued beyond the LZ through the heaviest enemy fire and landed beyond, suffering, no doubt, considerable unnecessary loss. Of these, about one half have returned to the Division. The glider pilots stated that they were not given the green light by the tugs and, despite the fact that many landings were taking place on what they estimated to be the proper LZ, they thought it more proper to wait until the tug gave them an indication to release.

Twelve (12) gliders of the 320th Field Artillery landed together three (3) miles South of the LZ. To date seventeen (17) glider loads from the D plus 1 Field Field Artillery landings were missing. All things considered, I would say that the D plus 1 glider landings were very successfully accomplished. There is obviously, however, considerable room for improvements; but the fact that so much was accomplished in the midst of a very tense ground fight on the edges of the landing zones speaks well for the training of the Troop Carrier pilots and the Airborne personnel they lift.

The D plus 6 glider landings were made on LZ "O". This area was free of all enemy small arms fire and comparatively free of flak. Several rounds of enemy artillery landed on the LZ during the landing. Troop Carrier serials arrived in compact formations with time intervals that permitted landings on the same general area without too great a possibility of collision. I believe, however, that more gliders could be put over the LZ without causing any difficulties if the flight plan could provide for it. The personnel participating in the flight reported spotty and at times intense flak enroute, particularly in the vicinity of the ground engagement that was then taking place on the XXX Corps line of communications at VECHHEL. Initial landings took place at 1600 hours. At 1800 hours, 75% of the 325th Infantry was present and effective. Today, D plus 8, 90% of the regiment is present. Missing gliders landed all the way from the UK to BRUSSELS, to LZ "O". As well as can be determined, landings were caused by tugs being shot down, gliders being shot loose, technical difficulties with tow ropes and flight equipment. All things considered, unit commanders participating in the D plus 6 flight feel that the flight was successfully accomplished. Again however, there is great room for improvement.

Resupply missions, as viewed from this end, worked out as follows:

Resupply on D plus 1 was by B-24 bombers at a low altitude into LZs "N" and "T". This was the only resupply mission flown at the proper altitude. Considerable dispersion resulted from the variance in release points of the drop. The resupply was well scattered, part of it falling into enemy hands; however, it served its purpose and we recovered about 80%, all of which was very vital to our continued combat existence at this time.

The resupply mission flown on D plus 2 consisted of 30-36 ships. I was present on LZ "O" at the time of their arrival. They flew quite high, estimated to be 3000 feet, and dropped their supplies over a great range of territory. Recovery was practically nil.

Resupply on D plus 4 was evidently well over 300 ships flying at variable altitudes, from the proper low height to a very high altitude, and dropping the supplies in a pattern about six miles long and two miles wide, with the center of it about six miles northwest of the LZ, making recovery extremely difficult.

Air resupply was every essential to guarantee the continued existence of this division since, despite the fact that contact had been established with British troops, they were unable to

furnish supplies of any class. Parachute resupply is, at its very best, an emergency means of resupply, and I believe to properly function would require about one third of the combat force being used as a recovery detail to get the supplies to the remainder of the combat unit engaged. This is obviously an impossibility in a hard fought combat situation such as we had here. I believe that your pilots made every reasonable effort to meet our resupply requirements despite the enemy interference present in the area, and I believe that the supplies delivered were an essential contribution to the Division's combat success. Error, if any, lies in planning a mission that requires supply of an airborne unit over such a long period of time by this means. I hope in the future training we will have an opportunity to work out a few resupply problems and establish closer resupply liaison between the ground and air units.

I personally did not feel that close enough liaison existed between my own headquarters on the ground where we were entirely familiar with the local enemy situation, and your own headquarters, where the pilots were being briefed. The areas of intense enemy activity, for example at VEGHEL, should have been avoided. The 325th Infantry, which is at present 90% effective, has been in the front lines for twenty-four (24) hours actively and closely engaging the enemy. I feel that we should be able to accomplish a better delivery from the take-off airdrome to the firing line under conditions now existing in this sector.

In looking back over the past week's operations one of the outstanding things in my opinion, and one thing in most urgent need of correction, is the method of handling our glider pilots. I do not believe there is anyone in the combat area more eager and anxious to do the correct thing and yet so completely, individually and collectively, incapable of doing it than our glider pilots.

Despite their individual willingness to help, I feel that they were definitely a liability to me. Many of them arrived without blankets, some without rations and water, and a few improperly armed and equipped. They lacked organization of their own because of, they stated, frequent transfer from one Troop Carrier Command unit to another. Despite the instructions that were issued to them to move via command channels to Division Headquarters, they frequently became involved in small unit actions to the extent that satisfied their passing curiosity, or simply left to visit nearby towns. In an airborne operation where, if properly planned, the first few hours are the quietest, this can be very harmful, since all units tend to lose control because of the many people wandering about aimlessly, improperly equipped, out of uniform, and without individual or unit responsibilities. When the enemy reaction builds up and his attack increases in violence and intensity, the necessity for every man to be on the job at the right place, doing his assign-

ed task, is imperative. At this time glider pilots without unit assignment and improperly trained, aimlessly wandering about cause confusion and generally get in the way and have to be taken care of.

In this division, glider pilots were used to control traffic, to recover supplies from the LZs, guard prisoners, and finally were assigned a defensive role with one of the regiments at a time when they were badly needed.

I feel very keenly that the glider pilot problem at the moment is one of our greatest unsolved problems. I believe now that they should be assigned to airborne units, take training with the units and have a certain number of hours allocated periodically for flight training. I am also convinced that our airborne unit co-pilots should have flight training so as to be capable of flying the glider if the pilot is hit.

In summary, the Division captured the GRAVE bridge several hours after landing, seized the key terrain between GROSBECK and NIJMEGEN during the night of D, D plus 1, captured two bridges over the MAAS-WAAL Canal by daylight D plus 1, and captured the big NIJMEGEN bridge on D plus 3. The Division could not have accomplished any one of these missions, nor its complete mission, but for the splendid, whole-hearted cooperation of the IX Troop Carrier Command. The drops and landings were the best in the history of this Division. The courageous performance of the pilots was magnificent and has been the subject of boundless favorable comment by all ground personnel. With all the sincerity at my command I would like to express to you my appreciation and that of every soldier of this division for the splendid performance of your command.

Sincerely,

/s/ James M. Gavin
/t/ JAMES M. GAVIN
Brigadier General, US Army
Commanding.

XIII. COMMENDATIONS

1. On D Day and the days following, numerous congratulatory messages were received by this headquarters regarding Troop Carrier Commands participation in the Operation. The following are excerpts taken from these messages.

a. From 46 Group (RAF)

MANY THANKS FOR YOUR SIGNAL WHICH IS MUCH APPRECIATED BY ALL. EVERYTHING SEEMS TO HAVE GONE EXTREMELY WELL.

Signed: DARVAL.

b. From 101st Airborne Division

PARACHUTE DROP SUPERBLY EXECUTED.

Signed: TAYLOR.

c. From Hq, Air Defense of Great Britain:

MESSAGE CORDIALLY APPRECIATED AND WILL BE CONVEYED TO ALL WHO HAD PRIVILEGE OF SUPPORTING YOUR MAGNIFICENT OPERATION.

Signed: RODERIC HILL.

d. From 82nd Airborne Division

CONGRATULATIONS AND THANKS FOR AN EXCELLENT DROP ON AREAS IN FACE OF HOSTILE FIRE.

Signed: GAVIN.

e. From 11 Group (RAF)

YOUR MESSAGE GREATLY APPRECIATED BY THIS HEADQUARTERS AND ALL PILOTS WHO WERE PRIVILEGED TO TAKE PART IN YOUR HISTORIC AND MAGNIFICENT OPERATION. PLEASE CONSIDER US ALWAYS 100% AT YOUR SERVICE IN YOUR FUTURE OPERATIONS.

Signed: BOUCHIER.

f. From 38 Group (RAF)

ON BEHALF OF THE OFFICERS AND MEN OF 38 AND 46 GROUPS I SEND GENERAL BRERETON AND YOU MY THANKS FOR YOUR MESSAGE OF CONGRATULATION. BE ASSURED THAT WHENEVER AND

WHEREVER AIRBORNE OPERATIONS ARE CARRIED OUT 38 AND 46 GROUPS WILL BE AT THE SIDE OF THE GALLANT COMRADES OF THE IX TROOP CARRIER COMMAND.

Signed: HOLLINGHURST.

g. From Airborne Corps Main:

HEARTIEST CONGRATULATIONS TODAYS DAKOTA FLIGHTS WHICH WERE EXCELLENT. BRING 878 AVIATION ENGINEERING BN EARLIEST FOR FURTHER DEVELOPMENT. ANTICIPATE VERY LARGE SUPPLY DEMAND FOR AIRBORNE CORPS AND SECOND ARMY TO HELP WIN THIS WAR QUICK. HOPE 52 DIVISION WILL ALSO BE ALLOWED TO COME.

Signed: RIDGEWAY

h. From Commanding General, First Allied Airborne Army:

GENERAL EISENHOWER ADDS HIS CONGRATULATIONS TO ALL RANKS OF THE FIRST ALLIED AIRBORNE ARMY TO THOSE OF GENERAL MARSHALL, THE CHIEF OF STAFF OF THE UNITED STATES ARMY WHO CABLED:

"DEAR BRERETON: MY CONGRATULATIONS AND THANKS TO YOU, YOUR STAFF, AND YOUR PILOTS AND CREWS FOR THE COURAGEOUS AND DETERMINED MANNER IN WHICH THEY HAVE CARRIED OUT THEIR DUTIES IN LANDING AND SUPPLYING THE DIVISIONS OF THE AIRBORNE ARMY IN HOLLAND. I AM REQUESTING GENERAL EISENHOWER TO TRANSMIT A MESSAGE TO THE UNITED STATES GROUND UNITS OF THE FORCES WHICH ARE NOW ENGAGED IN THE SALIENT."

THIS WELL DESERVED TRIBUTE IS PASSED ON TO THE ALLIED ELEMENTS FORMING MY COMMAND WITH MY FULL APPRECIATION THAT IT WAS THE JOINT EFFORT OF ALL CONCERNED WHICH MADE THESE PROJECTS SUCCESSFUL AND MERITED THIS COMMENDATION.

Signed: BRERETON



General URQUHARDT of British Airborne, congratulates General WILLIAMS on splendid job performed by Troop Carrier during Holland invasion. This was shortly after General URQUHARDT was evacuated from ARNHEM.

XIV. CONCLUSIONS

1. Daylight employment of the Troop Carrier Forces was highly successful. Excellent concentration of parachute troops and the pinpoint accuracy of all drops can be partially attributed to the benefit derived from daylight. Formations tightened intervals, column time lengths were cut down, and aircraft flew to the target in three (3) parallel streams with one and one-half (1½) miles between center and outside streams. In certain instances where 38 and 46 Groups (RAF) participated, an additional or fourth column appeared one thousand (1000) feet above the Troop Carrier center stream. Daylight operations thus shortened time of troop carrier flights over hostile territory, contributed to the element of surprise and provided quick assembly of troops on the ground.

2. It must be emphasized here, that although daylight attributes much to the accuracy of the mission, such employment can only be made possible when the required air support is present, doing the vital work on enemy ground installations to eliminate flak and small arms fire in the troop carrier corridors, and keeping enemy aircraft away from the column. This support must of necessity be abundant at all times.

3. Establishing two routes to the target area was planning that paid high dividends during Operation MARKET. Being prepared to switch from a Northern approach to a Southern approach to the target, made the whole of the tactical employment efficient and flexible. The enemy did not find us wearing our welcome on one specific route, bad weather on one route was ignored in preference to the good weather on the other, and employment of both routes simultaneously provided necessary relief of traffic congestion during low visibilities on both routes.

4. Results of extensive pre-invasion training of combat crews, strict air discipline, and rigid airfield organization were very evident during the entire operation. This training cultivated a high sense of duty in all the crews and developed the pride necessary to retain unit efficiency and integrity during combat. Training should never be allowed to bog down when results are so gratifying.

5. Units should not be committed to more than one full lift per day. Had troop carrier forces been committed as was originally intended, i.e., to make a quick turn around to provide two complete lifts per day, results would have mounted into disorderly confusion. Insufficient time on the ground would have allowed no time for spot maintenance, quick repair of battle damage, and little or no rest for combat crews.

6. As in Operation NEPTUNE, the progress of the army in Operation MARKET depended, to a large extent, on the success of the airborne assault. The results of the airborne effort confirmed again what could be done with airborne forces properly employed. All the airborne tasks were accomplished - tasks that could only have been accomplished by airborne forces. There

were, however, certain failures or only partial successes in the movement of the army through the airborne corridor. This in no way resulted from any failures on the part of the three airborne divisions.

7. The degree of accuracy in operation MARKET could hardly be improved upon. However, it is still felt that there will always exist at least the possibility for a certain degree of marginal error in addition to individual error because of unforeseen circumstances. However, whenever risks are to be accepted, this margin is accepted with the risk. It has heretofore been granted that the Air Commander cannot guarantee to the Ground Commander the complete delivery of a given force on a specific point. The best that can be guaranteed is that most of the force will be delivered reasonably near the point, the balance, depending upon two partly known factors - - weather and the enemy. The Air Commander in operation MARKET gave the Ground Commander far better accuracy than he was able to guarantee.

8. The privilege of participating in Operation MARKET has certainly prepared troop carrier and airborne forces to undertake future tasks with the confidence of experience.

HEADQUARTERS TROOP CARRIER FORCES NAVIGATION DIAGRAM

FOR OPERATION
MARKET

MAP REFERENCE

GSGS 4369 SCALE 1:500,000

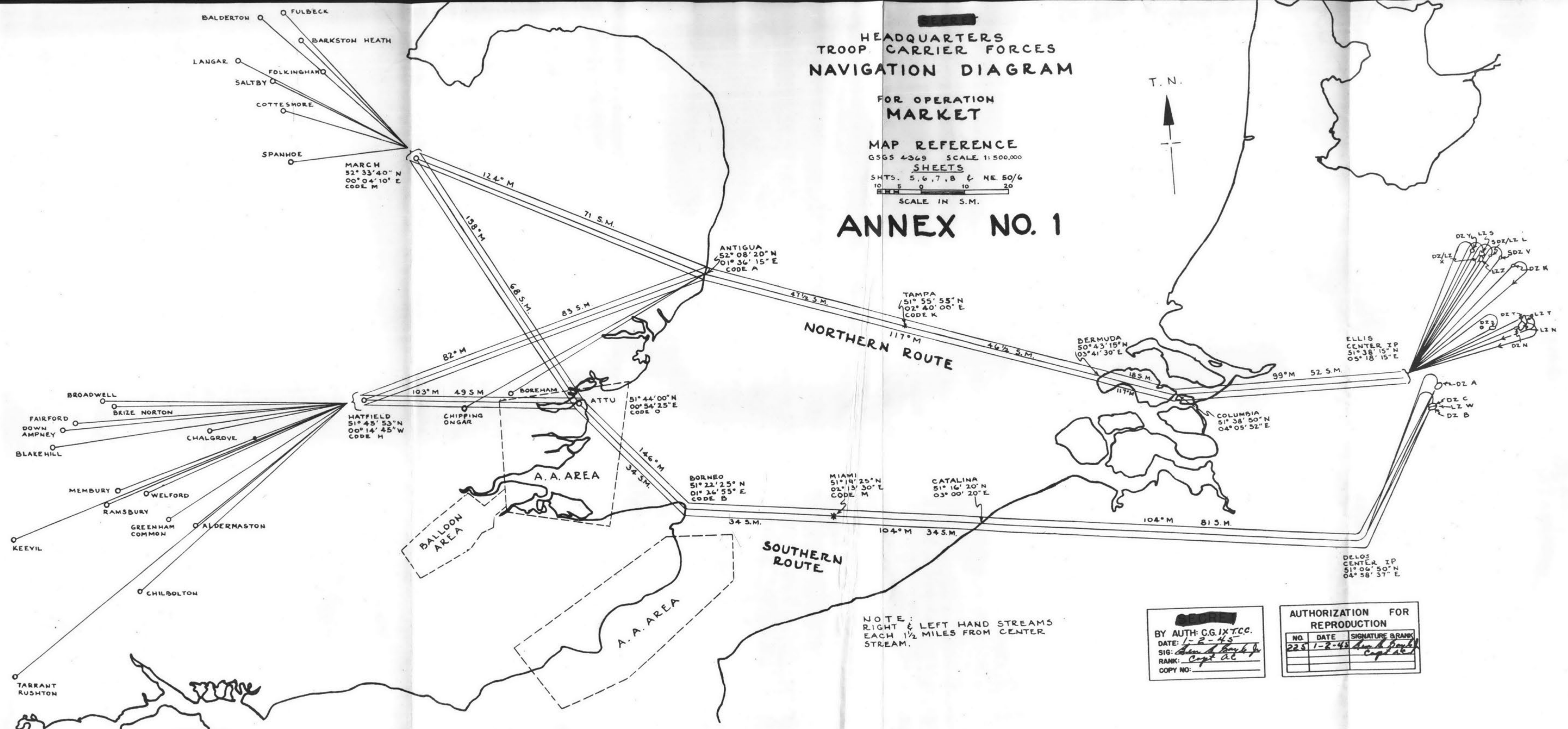
SHEETS

SHTS. 5, 6, 7, 8 & NE. 50/6

SCALE IN S.M.

ANNEX NO. 1

T.N.



NOTE:
RIGHT & LEFT HAND STREAMS
EACH 1 1/2 MILES FROM CENTER
STREAM.

BY AUTH: C.G.IX.TCC.
DATE: 1-2-45
SIG: *[Signature]*
RANK: *[Rank]*
COPY NO:

AUTHORIZATION FOR REPRODUCTION		
NO.	DATE	SIGNATURE RANK
225	1-2-45	<i>[Signature]</i> Capt AC

SCHEDULE OF NAVIGATIONAL AIDS

Place	Eureka Beacon			Compass Beac		Lights		Panels		Smoke Color	Responsibility (Except for Occults & Searchlights)
	Rec	Trans	Code	Freq	Code	Color	Code	Color	Letter		
March	B	C	M	1495	M	Searchlight	M				52nd Tr Carr Wg
	E	D				Cone***					
Hatfield	B	C	H	1360	H	Searchlight	H				53rd Tr Carr Wg
	E	D				Cone***					
Antigua	B	C	A	1638	A	Occult	A				Hq. IX Tr Carr Comd
	E	D									
Attu	B	C	O	1425	O	Occult	O				50th Tr Carr Wg
	E	D									
Borneo	B	C	B			Occult	B				Hq. IX Tr Carr Comd
	E	D									
Tampa	B	C	K			Holophane	K				Hq. IX Tr Carr Comd
	E	D				Green					
Miami	B	C	M			Holophane	M				Hq. IX Tr Carr Comd
	E	D				Green					
DZ "O"	E*	C*	O	1495*	O*			Yellow	O	V	82nd Pathfinder Co
DZ "N"	*	*	*	*	*					G	82nd Pathfinder Co
DZ "T"	*	*	*	*	*					R	82nd Pathfinder Co
LZ "N"	B*	D*	N	1688*	N*			White*	N	G	82nd Pathfinder Co
LZ "T"	B*	D*	N	*				Red*	T	R	82nd Pathfinder Co
DZ "A"	E	D	A	1425	A			Red	A	G	101st Pathfinder Co
DZ "B"	B	C	B	1525	B			White	B	R	101st Pathfinder Co
DZ "C"	B**	C**	B**	1525**	B**			Yellow	B	V	101st Pathfinder Co
LZ "W"	B	C	W	1525	W			White	W	R	101st Pathfinder Co
DZ "K"	C	A	K					White	K	B	21st Ind Para Co
LZ "L"	A	D	L			White	Very Pstl		L	V	21st Ind Para Co
LZ "S"	C	B	S			White	Very		S	V	21st Ind Para Co
DZ "X"	A	B	X					White	X	B	21st Ind Para Co
LZ "X"	A	B	X			Red	Very		X	V	21st Ind Para Co
	E	D									
DZ "Y"	D	C	Y					Red	Y	G	21st Ind Para Co
LZ "Z"	E	D	Z			Red	Very		Z	V	21st Ind Para Co
Supply DP "L"	A	D	L					White	L		21st Ind Para Co
Supply DP "V"	A	B	V					White	V		21st Ind Para Co

SCHEDULE OF NAVIGATIONAL AIDS
Continued

- (*) On first lift all aircraft for DZ/LZ "N" and DZ/LZ "T" will use Eureka and MF beacons set up on DZ "O". Green smoke on "N" and Red smoke on "T" will be the only aids set up on DZ/LZ "N" and DZ/LZ "T" during first lift. A white panel "T" may be available on LZ "N" for the glider serials of lift one. All tug aircraft going to LZ "N" or LZ "T" will use Eureka and MF beacon aids on DZ "O". Smoke and panels will be set up as scheduled for LZ "N" and LZ "T". All resupply missions (82nd A/B Div) will use all the navigational aids scheduled for LZ "N".
- (**) Only one set of Eureka and MF beacons will be used for DZs "B" & "C". It will be coded as scheduled. Panels and smoke will be used as scheduled to distinguish between the areas.
- (***) Searchlight cone consists of 6 searchlights with apex of cone at 5000', or cloud base if lower. Every other light will be coded in turn.

Aircraft on the corridor to 101st A/B Div. DZs and LZs will pass over a White Panel "T" and yellow smoke 5000 yards before they reach enemy lines after passing DELOS (101st A/B Div. IP, 51-06-50N, 04-58-37E)

COORDINATES

MARCH	52-33-40N	00-04-10E
HATFIELD	51-45-53N	00-14-45W
ANTIQUE	52-08-20N	01-36-15E
ATTU	51-44-00N	00-54-25E
BORNEO	51-22-25N	01-26-55E
TAMPA	51-55-55N	02-40-00E
MIAMI	51-19-25N	02-13-30E

NOTE: Under column headed panels - letter shown is WHITE.
Under column headed smoke color, colors are represented by arabic letter, V equals VIOLET, G equals GREEN, R equals RED, B equals BLUE

TIME SCHEDULE
(Clock Time)

Date: 13 September 1944
Headquarters: IX Troop Carrier Command

Serial	Tr Carr Unit	No. of A/C	101st CDP	82nd & 1st CDP	101st IP	82nd & 1st IP	12 "0"	12 "A"	12 "B"	12 "H"	12 "C"	12 "T"	12 "T"	12 "H"	12 "W"	101st IP	82nd & 1st IP	82nd & 1st CDP	101st CDP	Task	
A 1	F/P	2		1057		1219	1230										1231	1355		Para	
A 2A	F/P	2	1110		1212			1230								1249			1351	Para	
A 2B	F/P	2	1110		1212				1230							1247			1349	Para	
A 3	313	45		1119		1247			1300								1314	1436		Para	
A 4	434	45	1140		1242			1300								1310				Para	
A 5	313	45		1123		1251			1304								1318	1440		Para	
A 6	434	45	1144		1246			1304								1323				Para	
A 7	316	45		1127		1255			1308								1322	1444		Para	
A 8	442	45	1148		1250			1308								1327				Para	
A 9	316	45		1131		1259	1310										1323	1445		Para	
A 10	442	45	1152		1254				1310							1327				Para	
A 11	315	45		1135		1305	1314										1327	1449		Para	
A 12	436	45	1156		1258				1314							1331				Para	
A 13	315	45		1139		1307	1318										1331	1453		Para	
A 14	436	45	1200		1302				1318							1335				Para	
A 15	439	50		1143		1311			1324								1338	1500		Para	
A 16	435	36	1204		1306					1322						1339				Para	
A 17	441	45		1147		1315					1328						1343	1505		Para	
A 18	435	36	1208		1310					1326							1343			Para	
A 19	441	45		1151		1319					1332						1347	1509		Para	
A 20	438	45	1212		1314					1330							1347			Para	
A 21	440	42		1155		1323					1336						1351	1513		Para	
A 22	438	45	1216		1318					1334							1351			Para	
A 23	440	48		1159		1327			1340								1354	1516		Para	
A 24	314	36		1118		1246						1300					1315	1437		Para	
A 25	314	36		1122		1250						1304					1319	1441		Para	
A 26	61	36		1126		1254					1308						1323	1445		Para	
A 27	61	35		1130		1258						1312					1327	1449		Para	
A 28	439	50		1154		1336								1350			1404	1526		Glider	
A 29	437	35	1205		1322										1339	1356			1458	Glider	
A 30	437	35	1212		1329											1346	1405			1505	Glider

SECOND LIFT

"D" PLUS 1

[illegible]

SHIP LIFT

"D" PLUS 2

Serial	Tr	Unit	No. of	101st	824 & 2r	101st	824 & 2r	LE "W"	LE "T"	LE "H"	LE "I"	DE "T"	101st	824 & 2r	824 & 2r	101st	Task
			A/C	OP	OP	IP	IP						IP	IP	OP	OP	
A 58	434	40		0826		0943		1000					1017			1119	Glider
A 59	313	49			0804		0946		1000					1015	1137		Glider
A 60	435	31		0833		0950		1007					1024			1126	Glider
A 61	61	40			0811		0953		1007					1022	1144		Glider
A 62	438	40		0840		0957		1014					1031			1133	Glider
A 63	316	40			0818		1000		1014					1029	1151		Glider
A 64	442	40		0847		1004		1021					1038			1140	Glider
A 65	440	40			0825		1007		1021					1036	1158		Glider
A 66	436	40		0854		1011		1028					1045			1147	Glider
A 67	441	40			0832		1014			1028				1042	1204		Glider
A 68	437	40			0839		1021				1038			1053	1215		Glider
A 69	437	40			0846		1028				1045			1100	1222		Glider
A 70	313	49			0853		1035		1049					1104	1226		Glider
A 71	434	40		1239		1345		1400					1417			1519	Resupply
A 72	435	40			1243		1349		1404				1421			1523	Resupply
A 73	436	40			1247		1353		1408				1425			1527	Resupply
A 74	439	40			1251		1357		1412				1429			1531	Resupply
A 75	438	31			1255		1401		1416				1433			1535	Resupply
A 76	61	35			1220		1348			1400				1414	1536		Resupply
A 77	316	37			1224		1352			1404				1418	1540		Resupply
A 78	440	35			1228		1356			1408				1422	1544		Resupply
A 79	441	35			1232		1400			1412				1426	1548		Resupply
A 80	315	27			0816		0944				1000			1017	1139		Para
A 81	315	27			0820		0948				1004			1021	1143		Para
A 82	314	27			0824		0952				1008			1025	1147		Para
A 83	314	27			0828		0956				1012			1029	1151		Para

FOURTH LIFE

"D" PLUS 3

Serial	Tr	Carr	No. of	101st	824 & Rr	101st	824 & Rr	LZ "W"	LZ "T"	LZ "N"	LZ "X"	LZ "K"	101st	824 & Rr	824 & Rr	101st	Task
		Unit	A/C	GRP	GRP	IP	IP						IP	IP	GRP	GRP	
A 84		61	40		0803		0945				1000			1015	1137		Glider
A 85		61	39		0810		0952				1007			1022	1144		Glider
A 86		316	48		0817		0939		1013					1028	1150		Glider
A 87		440	48		0824		1006		1020					1035	1157		Glider
A 88		441	48		0831		1013		1027					1042	1204		Glider
A 89		313	44		0820		0948			1000				1014	1136		Resupply
A 90		315	44		0824		0952			1004				1018	1140		Resupply
A 91		314	43		0828		0956			1008				1022	1144		Resupply
A 92		439	44		0832		1000			1012				1026	1148		Resupply

GROUND SPEED

	OUT	IP to DE	BACK
Parachute Column	140	130	150
Glider Column	120	120	150
Resupply Column	140	140	150

TIME INTERVAL.

TIME INTERVAL

Parachute Column - head to head - 4 minutes
Glider Column - head to head - 7 minutes
Resupply Column - head to head - 4 minutes

All times are "A" time.

BY AUTH: C.G.IX T.C.C.
DATE: 1-2-45
SIG: [Signature]

AUTHORIZATION **REPRODUCTION**

NO.	DATE	SIGNATURE	RANK
225	1-2-45	Sam A. Haydel	Capt. AC-1

ANZEX NO. 3

Date: 13 September 1944
Headquarters: IX Troop Carrier Command

**FIRST LIFT
"D" DAY**

SECOND LIFT "D" PLUS 1

THIRD LIFT "D" PLUS 2

FOURTH LIST "D" PAGES 3TIME INTERVAL

Parasite Column - head to head - 4 minutes
Glider Column - head to head - 7 minutes
Resupply Column - head to head - 4 minutes

BY AUTH: C.G.IX.T.C.C.
DATE: 1-2-45
SIG: *Wm. B. Boyle*
RANK: *Capt AC*
COPY NO:

AUTHORIZATION FOR REPRODUCTION		
NO.	DATE	SIGNATURE & RANK
225	1-2-45	<i>Wm. L. Taylor</i> Capt. A-1

ANNEX NO. 4

AIR SUPPORT ACTIVITY
IN CONNECTION WITH OPERATION
"MARKET"

1. Prior to D day.

Over 250 Lancasters and Mosquitoes of Bomber Command (Br) attacked enemy airfields night of D-1. One hundred aircraft attacked coastal batteries and shipping in Dutch Islands area morning of D day, dropping 500 tons with good results. Airfields and enemy installations in ARNHEM/DEELLEN area attacked by Eighth Air Force heavies prior to D day.

2. D day.

Two hundred eighty-one aircraft of Bomber Command made diversionary and countermeasure sweeps.

Eight hundred twenty-one of 875 B-17s hit flak batteries and enemy installations in Holland, dropping 3139 tons G.P. and frags on 117 assigned targets and EINDHOVEN Airfield from 8,000 to 22,000 feet. Air opposition nil. Flak moderate and inaccurate ARNHEM. Meager and inaccurate WEERT and NIJMEGEN. Two B-17s lost to flak. Results 117 assigned targets: 43 good; 24 fair; 50 poor. One hundred forty-one of 153 P-51s flew escort cover for bombers. No air opposition. No claims. One P-51 lost, unknown.

Direct Support. Five hundred and three of 550 aircraft (201 P-47s 36 P-38s, 313 P-51s) escorted airborne formations, bombed and strafed flak positions. One hundred seventy-two aircraft dropped 44.5 tons frags on AA and miscellaneous ground targets. Two groups met enemy aircraft; one group engaged 15 ME 109s north of WESEL..another group, 15 Fw. 190s southwest of WESEL. Claims 7-0-0- air --1-0-0- ground. Loss of 8 P-47s, 8 P-51s (6 to AA, 1 to enemy aircraft, 2 category "E", 7 to other causes).

Strafing and bombing:

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
AA Positions	107	32
Box cars	98	49
Trucks	20	9
Locomotives	3	7
Tanks	4	1
Barges	1	5
Staff cars	3	0
Barracks	0	12
Factories	1	0
Bridges	0	2

Area support (AEAF)

Two hundred sixty-eight Spitfires, 67 Tempests, 36 RAF Mustangs

made cannon attacks on barges, motor vehicles, flak positions. One Mustang missing.

Fifty Mosquitoes, 48 Mitchells, 24 RAF Bostons attacked barracks at ARNHEM, NIJMEGEN, EDE. Four tons H.E. on NIJMEGEN, 27 tons H.E. on ARNHEM. Bursts seen among buildings. Three missing, flak - four damaged.

Night 17/18 September. Nine Mosquitoes on defensive patrols over Airborne areas Holland. Nil.

3. D plus 1 day.

Fighter-bomber escort. Three hundred ninety of 415 aircraft dispatched (99 P-47s, 316 P-51s) provided support for First Allied Airborne Army. Bombed, strafed, escorted C-47s. Eight and nine-tenths tons frag and phosphorus bombs dropped by 49 aircraft on 37 flak positions and other targets--good results. One hundred single-engine enemy aircraft in two main concentrations encountered. Claims 29-0-1. Losses 3 P-47s, 4 P-51s (2 to flak, 5 to unknown causes).

Bombing and Strafing

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
AA Positions	33	4
Half tracks	5	0
Radar Stations	1	9
Ammunition trucks	10	1
Staff cars	2	-
Busses	1	-

Special operations. Two hundred forty-six of 252 B-24s dropped supplies to airborne in 3 assigned areas--good results. Escort by 192 of 193 fighters. Enemy aircraft opposition nil. Fifty-nine fighters dropped 10.5 tons frags on flak positions. Two groups strafed rail and road traffic. Flak was moderate to intense, accurate, light and S.A. fire. Bomber losses 16, fighters 21--all to flak.

Bombing and Strafing

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
AA positions	6	12
Locomotives	7	-
Trucks	3	16
Railroad cars	20	14
Oil Trucks	1	98
Staff cars	5	-
Flak cars	-	3

Photo Recon. Seven F-5s and 1 Mosquito. No Losses.

General Area Support. Two hundred sixty-two Spitfires, 48 Tempests, 36 RAF Mustangs. No enemy aircraft combats. Attacks made on flak positions, flak barges, other ground targets.

Night 18/19 September. Two Mosquitoes carried out defensive patrols over airborne areas.

4. D plus 2 days.

One hundred seventy-two of 182 P-51s escorted airborne. Forty plus Me. 109s engaged near ARNHEM. Thirty plus Fw. 190s engaged same area. Thirty plus single-engine fighters near WESEL. Twenty to thirty single-engine fighters near IJSSSELSTEIN. Claims 23-1-4. Losses 9 P-51s (7 unknown, 1 flak, 1 crash landing).

Photo missions. Twenty-three aircraft dispatched. Two F-5s, 1 Spitfire, 1 Mosquito lost.

Night 18/19 September. Thirty-eight Mosquitoes dispatched on enemy movements WALCHEREN/SCHIEDT area. Twenty-seven attacked--7 tons H.E. and 117 flares on M/T, barges, trucks. One crashed on return killing crew.

Area Support. Two hundred one Spitfires and RAF Mustangs. Enemy aircraft encountered. Claims 2-2-0. Losses one aircraft missing.

5. D plus 3 days.

Six hundred forty-four of 679 fighter aircraft dispatched escorted, strafed and bombed. No enemy aircraft encountered. (470 P-51s, 183 P-47s, 26 P-38s) 11 Squadron P-47s equipped 143 lbs rockets attacked flak positions, fair results. Poor visibility hampered fighters, fighter-bombers. Two of 4 groups prevented from bombing. Including rockets, 4.7 tons dropped. Light, intense flak encountered. Five aircraft lost (2 unknown, 1 mechanical failure, 2 crash landed). Claims nil.

Bombing and Strafing

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
AA positions	1	2
Flak cars	1	-
Trucks	4	-
Horse drawn vehicles	2	-
Buses	1	-
Trucks	1	-

Photo Recce. Six F-5s ARNHEM/NIJMEGEN area. All returned safely.

Night 19/20 September. Twenty-two Mosquitoes attacked barges, river crossings, troop movements east to EMMERICK.

Ground Support. Thirty-six Mustangs and 16 Spitfires abandoned patrols SUPPORT GROUND FORCES BECAUSE WEATHER NIJMEGEN area.

Special Support. Two hundred fifty-five fighters of ARAF (Spits, Typhoons, RAF Mustangs) operated but made few attacks account weather. Good bomb results on one enemy strong point.

6. D plus 4 days.

Ninety of 95 fighters (71 P-47s, 24 P-51s) supported airborne operations. One group bombed flak positions. Ten other groups held by weather. Haze and overcast down to 100 yards recalled group of P-51s. One group P-47s jettisoned frags in Channel. Enemy aircraft resistance strong. Two P-47 groups met over 50 Me. 109s and Fw 190s NIJMEGEN-LUCHEM area. Some enemy aircraft attacked as other flew top cover. Square wing tip Fw. 190s seen. Enemy pilots seemed experienced and skillful. Combats from 10,000 feet down to deck. Claims 20-0-2. Losses 4 P-47s, all to enemy aircraft. Intense, light flak in all enemy held battle areas.

Photo Recce. Two F-5s on P/R. Both returned safely.

Area Support. One hundred fourteen Spitfires, 21 RAF Mustangs sighted 18 enemy aircraft. Resulting combat 3 Fw 190s damaged. Poor weather.

7. D plus 5 days.

Seventy-seven of 79 fighters (sweeps over ARNHEM area). No enemy aircraft encountered. All back safely.

Photo Recce. Seven P/R aircraft over battle area in Holland. No losses.

8. D Plus 6 days.

Five hundred fifty-nine of 586 Eighth Air Force fighters (136 P-47s, 410 P-51s, 40 P-38s) supported airborne operations near NIJMEGEN. These groups assigned to attack flak positions. Forty-three aircraft dropped 10.4 tons frags on AA and miscellaneous ground targets with good results. Remainder escorted and strafed ground positions. Enemy aircraft opposition approximately 185 Fw. 190s and Me. 109s. Three groups had combat, 4 other groups sighted enemy aircraft but did not engage. Claims 27-2-6. Losses 13 P-47s, 12 P-51s (3 to intense flak; of 17 missing, 12 believed safe in friendly territory).

Bombing and Strafing

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
AA positions	18	17
Trucks	23	2
Tanks	3	1
Vehicles	1	1

9. D plus 7 days.

Photo Recce. Two F-5s covered ARNHEM/NIJMEGEN. Both failed to return. Seventy-nine Typhoons, 35 RAF Mustangs operated ARNHEM/BREDA/GORINGHEM areas.

Bombing and Strafing

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
Locomotives	7	7
RR Trucks	47	2
Trains	2	1
M/T	3	64

One Typhoon missing.

Twenty-two R.P. Typhoons provided support for ground forces ARNHEM area attacking successfully infantry, mortar positions and headquarters building. One hundred twenty-seven Spitfires, 12 RAF Mustangs flew defensive sorties without incident.

Night 24/25. Six Mosquitoes on recce over Holland. Forty-nine Mosquitoes harrassed enemy movement between RHINE and MAAS Rivers.

10. D plus 8 days.

Sixty Spitfires and 36 RAF Mustangs provided escort for 33 Dakotas. Fifty enemy aircraft encountered ARNHEM area. Forty enemy aircraft flying east near HENNELO. Claims 2 Fw. 190s, 2 Me. 109s destroyed; 2 Fw. 190s damaged. Losses two Mustangs.

Defensive Patrol. Seventy-three Spitfires patrolled. One missing. Twenty-one Mustangs and 11 Mosquitoes. Mosquitoes destroyed 1 He. 111 in ARNHEM area.

Special Support. Fifty-four Mitchells and 24 RAF Bostons dispatched. Seventy-four aircraft attacked 5 enemy gun and mortar positions in support of ground forces. One hundred thirteen tons H.E. dropped. Six Mitchells attacked by 12 Fw. 190s. Claims 2 Fw. 190s probables. Losses 2 Mitchells and 1 Boston missing.

Photo Recce. One F-5 operated West of NIJMEGEN and returned safely.

11. D plus 9 days.

Three hundred twenty of 336 fighters (173 P-47s, 96 P-51s, 67 P-38s) flew sweeps and escort for airborne operations. Two groups included from Ninth Air Force. Encountered approximately 50 Me. 109s and Fw. 190s in MUNSTER/HALTERN area. Ensuring combat claims 32-1-3 for loss of 2 (1 P-38 to unknown cause, 1 P-51 category "E" damage). Other groups swept area uneventfully.

Photo Recce. Nine F-5s out. Some in battle areas of Holland. Two were intercepted, 1 by 4 enemy aircraft, the other by eight enemy aircraft--both evaded safely. All returned to bases.

12. D plus 10 days.

Three hundred thirty-five Spitfires, 247 Typhoons and 93 RAF Mustangs operated in ARNHEM/NIJMEGEN/APELDOORN area. Number of combats in ARNHEM area. Forty-one enemy aircraft destroyed, 2 probables, 16 damaged. Six more enemy aircraft destroyed on ground, 3 damaged on ground.

<u>Additional claims</u>	<u>Destroyed</u>	<u>Damaged</u>
M/T	21	37
Locomotives	4	22
Trucks	55	70

Six Spitfires and 4 other aircraft missing.

Other Support. During day 66 Spitfires, 14 Tempests on fighter operations over Holland. Two locomotives destroyed, many trucks attacked with cannon--strikes seen. Two Spits and 1 Tempest missing.

NOTES BY A.O.C. NO. 46 GROUP ON VISIT
TO BELGIUM AND HOLLAND. 21.9.44 -
24.9.44

1. As a result of the difficulty of obtaining information as to the tactical situation in the battle area in Northern Holland, and of the casualties which the Group was incurring in their re-supply operations of the 1st Airborne Division, I decided to visit the scene of operations, endeavour to arrange that better tactical information was available, and to appreciate the problem on the spot.

2. I arrived at Brussels Airport at about 1630 hours, and proceeded straight to Headquarters, 2nd T.A.F. where I saw S.A.S.O. and A.O.C. Both appreciated the difficulties of attempting to get a true tactical picture of the position in the United Kingdom, and of the embarrassment that it was to No. 83 Group being excluded from operations over the battle area, for vital periods, while airborne resupply was taking place. Both appreciated the difficulties of laying on re-supplies from the West of England to Holland when the weather was difficult, and it was difficult for rendezvous to be made with Fighters with any accuracy over the area.

3. I suggested that we should be wise to base a Squadron in the Brussels area, where it should be able to get the latest available information and be provided with intimate fighter cover by No. 83 Group, all of whose pilots knew the area, and where close co-operation, without which success is difficult, can be obtained. It was agreed that this was very desirable the only difficulty being likely to be the supply of aviation fuel in sufficient quantity. Subject to that being available or being brought in by air, it was agreed that a Squadron should be moved in as soon as practicable.

4. S.A.S.O. 2nd T.A.F. drafted a Signal to A.E.A.F., C.A.T.O.R., and 46 Group recommending the move forward of a Squadron, and asking for air transport to be made available to assist the move. It was clear, from a visit to the Operations Room, and discussions with the Operations Officers, that very little up-to-the-minute information was available in Brussels, and that in order to get the picture, it would be necessary to visit Headquarters, 83 Group.

5. Accordingly, I drove to Louvain the next morning early to contact the A.O.C. and S.A.S.O. No. 83 Group. It was ascertained that since No. 83 Group was not concerned in any way in the airborne operations, they had little knowledge of the position in the Nijmegen area. This meant a flight of something like 90 miles over country mainly in enemy hands and the only safe way to do it was to fly at tree-top height over the road, along which transport columns were being moved forward, and which was controlled to some extent by British tanks and armoured cars.

6. Accordingly, S.A.S.O. laid on an Auster aircraft and pilot, and I left in poor visibility and low cloud at about 1000 hours.

7. We reached the emergency Auster strip, made by the 1st Airborne Corps about 2 miles south of Nijmegen town at 11.30, after having appreciated how narrow the safe corridor was, because when on one or two occasions, owing to bad visibility we deviated from the roadtop, we attracted the unpleasant attention of hostile machine guns.

8. I proceeded from the strip straight to Headquarters, No. 30 Corps, where I met the G.S. and subsequently the G.O.C. Lieut. General Horrocks. Both appreciated the vulnerability of the transport aircraft attempting to re-supply the cut-off 1st Airborne Division, and both expressed admiration for the courage and determination of the crews who were flying in supplies.

9. We laid on medium artillery fire against the enemy flak artillery positions, so that later in the evening there would be support for the re-supply aircraft from the ground as well as Fighters. It was appreciated by everyone the advantage that would follow the establishment of an Air Force Liaison Officer in the forward area, who could get the Transport and Fighter Squadrons employed on this duty intimately briefed with the latest situation.

10. It was appreciated nowhere south of the 30 Corps area quite how tenuous was the hold on the road. A small area was held by our forces in the Nijmegen district. North of Eindhoven, we literally held nothing but the road itself until the bridge over the Maas River was reached, and then the area occupied by the 30 Corps re-inforced by the 101 Airborne Division was only about six miles wide. The whole of it was under shell-fire from German positions to the North and East.

11. I then proceeded to Headquarters of the Airborne Corps where I met General Browning, and his Chief of Staff. They explained the position in which the 1st Airborne Division was, as far as was then known, and stated that they had very few messages from them, but it seemed as if the 1st Paratroop Brigade which had at one time captured the Bridge intact, had been eliminated. It also seemed as if the rest of the 1st Airborne Division were in a bad way, and were restricted to an area of about 1,000 yards x 1,000 yards West of Arnhem, which was continually under mortar, machine-gun and artillery fire. Everyone expressed their admiration for the crews of the supplying aircraft. In spite of the fact that quite a large number were being shot down in flames no following crew ever showed any sign of faltering. They appreciated the difficulty of communications and were only too anxious that a better system should be laid on if possible.

12. I discussed both with the Airborne Corps and 30 Corps the question of using Fighters for dropping supplies, and thus cutting our losses down to a minimum, and both were only too anxious to make our task less hazardous and more certain.

13. I went back to the Strip immediately on leaving the Airborne Corps, to get back by air to 83 Group. Unfortunately some 30 miles back down the road we ran into German opposition. The aircraft was hit, and we had to land alongside our forward troops. It transpired that a German column of tanks and Panzer Grenadiers had reached the road a few minutes after we passed up during the morning, and had obtained control of 10 miles of it. The only other two aircraft to fly at that time were shot down, one containing the Chief of Staff of the 2nd Army, who made his way back to our lines, the other has not been heard of since.

14. I borrowed a reconnaissance car from the K.D.G. and returned to 30 Corps Headquarters to report the road block. There was no communication where it had broken to the forward area. It was subsequently confirmed that the road was blocked; all transport was stopped, and operations were laid on at both ends of the break to clear it. In consequence I was unable to return to Headquarters, 83 Group, and therefore, after a Conference with General Harrocks and Browning and Chief of Staff, 2nd Army, I sent a signal asking for permission to move 575 Squadron from Broadwell to Evere, so that future re-supplying could take place under the best possible tactical situation, with the best information, and possibly at night.

15. Later that evening, I visited Nijmegen Bridge which had been captured the night before, and saw some of the fighting going on in that area. It was extremely interesting to see the tank actions going on with the local population watching them from the windows of nearby houses, or from the shelter of trees in the fields, and apparently not being particularly alarmed by the shells and machine-gun fire.

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only required the removal of some wire fencing to make it immediately available.

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21. On returning to 30 Corps Headquarters, we reported the position of this field by Signal, and had a Conference with Generals Browning and Harrocks, discussing the results of the Airborne and Army operations up to date. Unquestionably, the 82nd and 101st American Airborne Divisions admirably supported by 30 Corps had been most successful in capturing the vital bridges which were their objectives. The Bridge at Nijmegen in particular, which the 82nd captured, supported by tanks of the G. Armoured Division was a great achievement, the main span being something more than 1,000 ft. long, and the river a most formidable obstacle. As far as the bridge at Arnhem was concerned, it was clear that insufficient provision had been made for the task. It would have to be borne in mind in future, that when an Airborne force was landed for an operation of this kind, sufficient troops must be made available, not only for achieving the objective itself, but also for securing the D.Z. for re-supply. It was also most important that a link up on the ground should be made as soon as possible as opposition was bound to build up and re-supply in the face of massed flak was not only expensive but often unsuccessful.

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26. The position was discussed with Air Vice Marshal Broadhurst and his S.A.S.O. The A.O.C. said that he had his Typhoon wings equipped for supply dropping and that he would willingly undertake such work if he was asked to do it. He was sure that that was the right way to tackle such a problem. No one far from the battle could have the best and most up to date tactical information, and supply in such circumstances needed intimate touch between the fighters and the supplying aircraft, either Typhoons or Dakotas. We agreed that I should send forward a liaison officer to 30 Corps to keep him in the picture and that he would organize resupply operations including the provision of Typhoons if necessary, keeping in touch with O.C. 111 Wing at EVERE.

27. He pointed out how unsatisfactory it had been from his point of view being forbidden to operate over the battle area during the periods when resupply was in progress. He also referred to the proposal to use the forward airfields now being made at Eindhoven and Graves for further transport work since that would prevent the establishment forward of the fighter wings and thus deprive the forward troops of effective fighter cover and close support. It was for the Army Commander to decide what he wanted most, but he could not guarantee effective cover at the ranges now involved and the Luftwaffe was showing signs of being more aggressive.

28. I returned to Brussels by Auster the following morning, briefed 575 Squadron for their resupply mission to GRAVES, and instructed the Station Commander to land there and inspect the field from the point of view of intensive use by Dakotas.

29. I then proceeded to Headquarters 2nd T.A.F. and discussed the position with S.A.S.O. and A.O.A. Both were happy to base the squadron temporarily forward and agreed to the control of operations by 83 Group. A.O.A. said that the fuel position was better since a petrol train had just been reported to have arrived. They pointed out the difficult position 2nd T.A.F. and 21st Army Groups were in, being deprived of nearly all air transport during the airborne phase, and hoped that more resources would soon be put at their disposal.

30. S.A.S.O. agreed to my sending forward a liaison officer so long as he was clearly responsible to A.O.C. 83 Group. He had talked to Air Vice Marshal Broadhurst about the use of Typhoons for supply and agreed that they were the better answer.

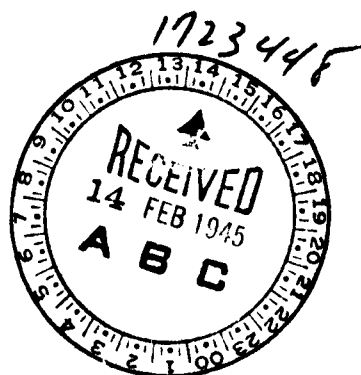
31. Before leaving for U.K. I sent W/Cdr. DUDGEON forward to report to A.O.C. 83 Group; and then proceed to Headquarters 30 Corps for temporary liaison duties.

/s/ L. Darvall
/t/ L. DARVALL
A/Cde

26/9/44

STRE: 10 MID 7R

49
JUL 10 5 16 20



AIR SUPPORT ACTIVITY
IN CONNECTION WITH OPERATION
"MARKET"

1. Prior to D day.

Over 250 Lancasters and Mosquitoes of Bomber Command (Br) attacked enemy airfields night of D-1. One hundred aircraft attacked coastal batteries and shipping in Dutch Islands area morning of D day, dropping 500 tons with good results. Airfields and enemy installations in ARNHEM/DEELLEN area attacked by Eighth Air Force heavies prior to D day.

2. D day.

Two hundred eighty-one aircraft of Bomber Command made diversionary and countermeasure sweeps.

Eight hundred twenty-one of 875 B-17s hit flak batteries and enemy installations in Holland, dropping 3139 tons G.P. and frags on 117 assigned targets and EINDHOVEN Airfield from 8,000 to 22,000 feet. Air opposition nil. Flak moderate and inaccurate ARNHEM. Meager and inaccurate WEEERT and NIJMEGEN. Two B-17s lost to flak. Results 117 assigned targets: 43 good; 24 fair; 50 poor. One hundred forty-one of 153 P-51s flew escort cover for bombers. No air opposition. No claims. One P-51 lost, unknown.

Direct Support. Five hundred and three of 550 aircraft (201 P-47s 36 P-38s, 313 P-51s) escorted airborne formations, bombed and strafed flak positions. One hundred seventy-two aircraft dropped 44.5 tons frags on AA and miscellaneous ground targets. Two groups met enemy aircraft; one group engaged 15 ME 109s north of WESSEL. another group, 15 Fw. 190s southwest of WESSEL. Claims 7-0-0- air --1-0-0- ground. Loss of 8 P-47s, 8 P-51s (6 to AA, 1 to enemy aircraft, 2 category "E", 7 to other causes).

Strafing and bombing:

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
AA Positions	107	32
Box cars	98	49
Trucks	20	9
Locomotives	3	7
Tanks	4	1
Barges	1	5
Staff cars	3	0
Barracks	0	12
Factories	1	0
Bridges	0	2

Area support (ARAF)

Two hundred sixty-eight Spitfires, 67 Tempests, 36 RAF Mustangs

made cannon attacks on barges, motor vehicles, flak positions. One Mustang missing.

Fifty Mosquitoes, 48 Mitchells, 24 RAF Bostons attacked barracks at ARNHEM, NIJMEGEN, EDE. Four tons H.E. on NIJMEGEN, 27 tons H.E. on ARNHEM. Bursts seen among buildings. Three missing, flak - four damaged.

Night 17/18 September. Nine Mosquitoes on defensive patrols over Airborne areas Holland. Nil.

3. D plus 1 day.

Fighter-bomber escort. Three hundred ninety of 415 aircraft dispatched (99 P-47s, 316 P-51s) provided support for First Allied Airborne Army. Bombed, strafed, escorted C-47s. Eight and nine-tenths tons frag and phosphorus bombs dropped by 49 aircraft on 37 flak positions and other targets--good results. One hundred single-engine enemy aircraft in two main concentrations encountered. Claims 29-0-1. Losses 3 P-47s, 4 P-51s (2 to flak, 5 to unknown causes).

Bombing and Strafing

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
AA Positions	33	4
Half tracks	5	0
Radar Stations	1	9
Ammunition trucks	10	1
Staff cars	2	-
Busses	1	-

Special operations. Two hundred forty-six of 252 B-24s dropped supplies to airborne in 3 assigned areas--good results. Escort by 192 of 193 fighters. Enemy aircraft opposition nil. Fifty-nine fighters dropped 10.5 tons frags on flak positions. Two groups strafed rail and road traffic. Flak was moderate to intense, accurate, light and S.A. fire. Bomber losses 16, fighters 21--all to flak.

Bombing and Strafing

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
AA positions	6	12
Locomotives	7	-
Trucks	3	16
Railroad cars	20	14
Oil Trucks	1	98
Staff cars	5	-
Flak cars	-	3

Photo Recon. Seven F-5s and 1 Mosquito. No Losses.

General Area Support. Two hundred sixty-two Spitfires, 48 Tempests, 36 RAF Mustangs. No enemy aircraft combats. Attacks made on flak positions, flak barges, other ground targets.

Night 18/19 September. Two Mosquitoes carried out defensive patrols over airborne areas.

4. D plus 2 days.

One hundred seventy-two of 182 P-51s escorted airborne. Forty plus Me. 109s engaged near ARNHEM. Thirty plus Fw. 190s engaged same area. Thirty plus single-engine fighters near WESEL. Twenty to thirty single-engine fighters near IJSSSELSTEIN. Claims 23-1-4. Losses 9 P-51s (7 unknown, 1 flak, 1 crash landing).

Photo missions. Twenty-three aircraft dispatched. Two F-5s, 1 Spitfire, 1 Mosquito lost.

Night 18/19 September. Thirty-eight Mosquitoes dispatched on enemy movements WALCHEREN/SCHIEDT area. Twenty-seven attacked--7 tons H.E. and 117 flares on M/T, barges, trucks. One crashed on return killing crew.

Area Support. Two hundred one Spitfires and RAF Mustangs. Enemy aircraft encountered. Claims 2-2-0. Losses one aircraft missing.

5. D plus 3 days.

Six hundred forty-four of 679 fighter aircraft dispatched escorted, strafed and bombed. No enemy aircraft encountered. (470 P-51s, 183 P-47s, 26 P-38s) 11 Squadron P-47s equipped 143 lbs rockets attacked flak positions, fair results. Poor visibility hampered fighters, fighter-bombers. Two of 4 groups prevented from bombing. Including rockets, 4.7 tons dropped. Light, intense flak encountered. Five aircraft lost (2 unknown, 1 mechanical failure, 2 crash landed). Claims nil.

Bombing and Strafing

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
AA positions	1	2
Flak cars	1	-
Trucks	4	-
Horse drawn vehicles	2	-
Buses	1	-
Trucks	1	-

Photo Recce. Six F-5s ARNHEM/NIJMEGEN area. All returned safely.

Night 19/20 September. Twenty-two Mosquitoes attacked barges, river crossings, troop movements east to EMMERICK.

Ground Support. Thirty-six Mustangs and 16 Spitfires abandoned patrols SUPPORT GROUND FORCES BECAUSE WEATHER NIJMEGEN area.

Special Support. Two hundred fifty-five fighters of ARAF (Spits, Typhoons, RAF Mustangs) operated but made few attacks account weather. Good bomb results on one enemy strong point.

6. D plus 4 days.

Ninety of 95 fighters (71 P-47s, 24 P-51s) supported airborne operations. One group bombed flak positions. Ten other groups held by weather. Haze and overcast down to 100 yards recalled group of P-51s. One group P-47s jettisoned frags in Channel. Enemy aircraft resistance strong. Two P-47 groups met over 50 Me. 109s and Fw 190s NIJMEGEN-LUCHEM area. Some enemy aircraft attacked as other flew top cover. Square wing tip Fw. 190s seen. Enemy pilots seemed experienced and skillful. Combats from 10,000 feet down to deck. Claims 20-0-2. Losses 4 P-47s, all to enemy aircraft. Intense, light flak in all enemy held battle areas.

Photo Recce. Two F-5s on P/R. Both returned safely.

Area Support. One hundred fourteen Spitfires, 21 RAF Mustangs sighted 18 enemy aircraft. Resulting combat 3 Fw 190s damaged. Poor weather.

7. D plus 5 days.

Seventy-seven of 79 fighters (sweeps over ARNHEM area). No enemy aircraft encountered. All back safely.

Photo Recce. Seven P/R aircraft over battle area in Holland. No losses.

8. D Plus 6 days.

Five hundred fifty-nine of 586 Eighth Air Force fighters (136 P-47s, 410 P-51s, 40 P-38s) supported airborne operations near NIJMEGEN. These groups assigned to attack flak positions. Forty-three aircraft dropped 10.4 tons frags on AA and miscellaneous ground targets with good results. Remainder escorted and strafed ground positions. Enemy aircraft opposition approximately 185 Fw. 190s and Me. 109s. Three groups had combat, 4 other groups sighted enemy aircraft but did not engage. Claims 27-2-6. Losses 13 P-47s, 12 P-51s (3 to intense flak; of 17 missing, 12 believed safe in friendly territory).

Bombing and Strafing

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
AA positions	18	17
Trucks	23	2
Tanks	3	1
Vehicles	1	1

9. D plus 7 days.

Photo Recce. Two F-5s covered ARNHEM/NIJMEGEN. Both failed to return. Seventy-nine Typhoons, 35 RAF Mustangs operated ARNHEM/BREDA/GORINGHEM areas.

Bombing and Strafing

<u>Claims</u>	<u>Destroyed</u>	<u>Damaged</u>
Locomotives	7	7
RR Trucks	47	2
Trains	2	1
M/T	3	64

One Typhoon missing.

Twenty-two R.P. Typhoons provided support for ground forces ARNHEM area attacking successfully infantry, mortar positions and headquarters building. One hundred twenty-seven Spitfires, 12 RAF Mustangs flew defensive sorties without incident.

Night 24/25. Six Mosquitoes on recce over Holland. Forty-nine Mosquitoes harrassed enemy movement between RHINE and MAAS Rivers.

10. D plus 8 days.

Sixty Spitfires and 36 RAF Mustangs provided escort for 33 Dakotas. Fifty enemy aircraft encountered ARNHEM area. Forty enemy aircraft flying east near HENNELO. Claims 2 Fw. 190s, 2 Me. 109s destroyed; 2 Fw. 190s damaged. Losses two Mustangs.

Defensive Patrol. Seventy-three Spitfires patrolled. One missing. Twenty-one Mustangs and 11 Mosquitoes. Mosquitoes destroyed 1 He. 111 in ARNHEM area.

Special Support. Fifty-four Mitchells and 24 RAF Bostons dispatched. Seventy-four aircraft attacked 5 enemy gun and mortar positions in support of ground forces. One hundred thirteen tons H.E. dropped. Six Mitchells attacked by 12 Fw. 190s. Claims 2 Fw. 190s probables. Losses 2 Mitchells and 1 Boston missing.

Photo Recce. One P-5 operated West of NIJMEGEN and returned safely.

11. D plus 9 days.

Three hundred twenty of 336 fighters (173 P-47s, 96 P-51s, 67 P-38s) flew sweeps and escort for airborne operations. Two groups included from Ninth Air Force. Encountered approximately 50 Me. 109s and Fw. 190s in MUNSTER/HALTERN area. Ensuring combat claims 32-1-3 for loss of 2 (1 P-38 to unknown cause, 1 P-51 category "E" damage). Other groups swept area uneventfully.

Photo Recce. Nine P-5s out. Some in battle areas of Holland. Two were intercepted, 1 by 4 enemy aircraft, the other by eight enemy aircraft--both evaded safely. All returned to bases.

12. D plus 10 days.

Three hundred thirty-five Spitfires, 247 Typhoons and 93 RAF Mustangs operated in ARNHEM/NIJMEGEN/APELDOORN area. Number of combats in ARNHEM area. Forty-one enemy aircraft destroyed, 2 probables, 16 damaged. Six more enemy aircraft destroyed on ground, 3 damaged on ground.

<u>Additional claims</u>	<u>Destroyed</u>	<u>Damaged</u>
M/T	21	37
Locomotives	4	22
Trucks	55	70

Six Spitfires and 4 other aircraft missing.

Other Support. During day 66 Spitfires, 14 Tempests on fighter operations over Holland. Two locomotives destroyed, many trucks attacked with cannon--strikes seen. Two Spits and 1 Tempest missing.

NOTES BY A.O.C. NO. 46 GROUP ON VISIT
TO BELGIUM AND HOLLAND. 21.9.44 -
24.9.44

1. As a result of the difficulty of obtaining information as to the tactical situation in the battle area in Northern Holland, and of the casualties which the Group was incurring in their re-supply operations of the 1st Airborne Division, I decided to visit the scene of operations, endeavour to arrange that better tactical information was available, and to appreciate the problem on the spot.

2. I arrived at Brussels Airport at about 1630 hours, and proceeded straight to Headquarters, 2nd T.A.F. where I saw S.A.S.O. and A.O.C. Both appreciated the difficulties of attempting to get a true tactical picture of the position in the United Kingdom, and of the embarrassment that it was to No. 83 Group being excluded from operations over the battle area, for vital periods, while airborne resupply was taking place. Both appreciated the difficulties of laying on re-supplies from the West of England to Holland when the weather was difficult, and it was difficult for rendezvous to be made with Fighters with any accuracy over the area.

3. I suggested that we should be wise to base a Squadron in the Brussels area, where it should be able to get the latest available information and be provided with intimate fighter cover by No. 83 Group, all of whose pilots knew the area, and where close co-operation, without which success is difficult, can be obtained. It was agreed that this was very desirable the only difficulty being likely to be the supply of aviation fuel in sufficient quantity. Subject to that being available or being brought in by air, it was agreed that a Squadron should be moved in as soon as practicable.

4. S.A.S.O. 2nd T.A.F. drafted a Signal to A.E.A.F., C.A.T.O.R., and 46 Group recommending the move forward of a Squadron, and asking for air transport to be made available to assist the move. It was clear, from a visit to the Operations Room, and discussions with the Operations Officers, that very little up-to-the-minute information was available in Brussels, and that in order to get the picture, it would be necessary to visit Headquarters, 83 Group.

5. Accordingly, I drove to Louvain the next morning early to contact the A.O.C. and S.A.S.O. No. 83 Group. It was ascertained that since No. 83 Group was not concerned in any way in the airborne operations, they had little knowledge of the position in the Nijmegen area. This meant a flight of something like 90 miles over country mainly in enemy hands and the only safe way to do it was to fly at tree-top height over the road, along which transport columns were being moved forward, and which was controlled to some extent by British tanks and armoured cars.

6. Accordingly, S.A.S.O. laid on an Auster aircraft and pilot, and I left in poor visibility and low cloud at about 1000 hours.

7. We reached the emergency Auster strip, made by the 1st Airborne Corps about 2 miles south of Nijmegen town at 11.30, after having appreciated how narrow the safe corridor was, because when on one or two occasions, owing to bad visibility we deviated from the roadtop, we attracted the unpleasant attention of hostile machine guns.

8. I proceeded from the strip straight to Headquarters, No. 30 Corps, where I met the G.S. and subsequently the G.O.C. Lieut. General Horrocks. Both appreciated the vulnerability of the transport aircraft attempting to re-supply the cut-off 1st Airborne Division, and both expressed admiration for the courage and determination of the crews who were flying in supplies.

9. We laid on medium artillery fire against the enemy flak artillery positions, so that later in the evening there would be support for the re-supply aircraft from the ground as well as Fighters. It was appreciated by everyone the advantage that would follow the establishment of an Air Force Liaison Officer in the forward area, who could get the Transport and Fighter Squadrons employed on this duty intimately briefed with the latest situation.

10. It was appreciated nowhere south of the 30 Corps area quite how tenuous was the hold on the road. A small area was held by our forces in the Nijmegen district. North of Eindhoven, we literally held nothing but the road itself until the bridge over the Maas River was reached, and then the area occupied by the 30 Corps re-inforced by the 101 Airborne Division was only about six miles wide. The whole of it was under shell-fire from German positions to the North and East.

11. I then proceeded to Headquarters of the Airborne Corps where I met General Browning, and his Chief of Staff. They explained the position in which the 1st Airborne Division was, as far as was then known, and stated that they had very few messages from them, but it seemed as if the 1st Paratroop Brigade which had at one time captured the Bridge intact, had been eliminated. It also seemed as if the rest of the 1st Airborne Division were in a bad way, and were restricted to an area of about 1,000 yards x 1,000 yards West of Arnhem, which was continually under mortar, machine-gun and artillery fire. Everyone expressed their admiration for the crews of the supplying aircraft. In spite of the fact that quite a large number were being shot down in flames no following crew ever showed any sign of faltering. They appreciated the difficulty of communications and were only too anxious that a better system should be laid on if possible.

12. I discussed both with the Airborne Corps and 30 Corps the question of using Fighters for dropping supplies, and thus cutting our losses down to a minimum, and both were only too anxious to make our task less hazardous and more certain.

13. I went back to the Strip immediately on leaving the Airborne Corps, to get back by air to 83 Group. Unfortunately some 30 miles back down the road we ran into German opposition. The aircraft was hit, and we had to land alongside our forward troops. It transpired that a German column of tanks and Panzer Grenadiers had reached the road a few minutes after we passed up during the morning, and had obtained control of 10 miles of it. The only other two aircraft to fly at that time were shot down, one containing the Chief of Staff of the 2nd Army, who made his way back to our lines, the other has not been heard of since.

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27. He pointed out how unsatisfactory it had been from his point of view being forbidden to operate over the battle area during the periods when resupply was in progress. He also referred to the proposal to use the forward airfields now being made at Eindhoven and Graves for further transport work since that would prevent the establishment forward of the fighter wings and thus deprive the forward troops of effective fighter cover and close support. It was for the Army Commander to decide what he wanted most, but he could not guarantee effective cover at the ranges now involved and the Luftwaffe was showing signs of being more aggressive.

28. I returned to Brussels by Auster the following morning, briefed 575 Squadron for their resupply mission to GRAVES, and instructed the Station Commander to land there and inspect the field from the point of view of intensive use by Dakotas.

29. I then proceeded to Headquarters 2nd T.A.F. and discussed the position with S.A.S.O. and A.O.A. Both were happy to base the squadron temporarily forward and agreed to the control of operations by 83 Group. A.O.A. said that the fuel position was better since a petrol train had just been reported to have arrived. They pointed out the difficult position 2nd T.A.F. and 21st Army Groups were in, being deprived of nearly all air transport during the airborne phase, and hoped that more resources would soon be put at their disposal.

30. S.A.S.O. agreed to my sending forward a liaison officer so long as he was clearly responsible to A.O.C. 83 Group. He had talked to Air Vice Marshal Broadhurst about the use of Typhoons for supply and agreed that they were the better answer.

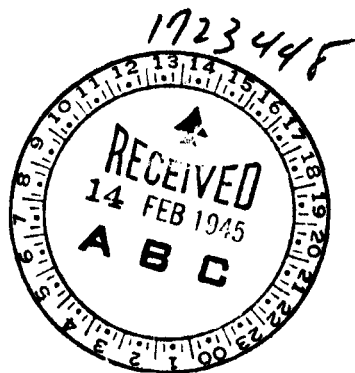
31. Before leaving for U.K. I sent W/Cdr. DUDGEON forward to report to A.O.C. 83 Group; and then proceed to Headquarters 30 Corps for temporary liaison duties.

/s/ L. Darvall
/t/ L. DARVALL
A/Cde

26/9/44

Send: AG MAD Br.

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Hq., 508th Parachute Inf.
A.P.O. 230, U. S. Army
In the field
24 October 1944

30 DAYS IN HOLLAND AND GERMANY WITH THE 508th PARACHUTE INFANTRY

PART I - 17 September to 24 September 1944.

508th Parachute Infantry explained in three lifts at LANGAR and FULBECK airfields, England, at 1000 hour, 17 September 1944. The weather was cloudy with a ceiling of 1000 feet over the fields. The three lifts flew in low scattered clouds over ENGLAND, but broke into the clear when they reached the ENGLISH CHANNEL. After departure from ENGLAND the weather was clear and warm.

The flight reached the Dutch coast on schedule, and all check points to the DZ were crossed at the scheduled time. No enemy fighter opposition was encountered. Some scattered flak was encountered at the landfall on the Dutch coast. After leaving the coast of HOLLAND behind no more flak was encountered until fifteen minutes before drop time. The last of fifteen minutes of the flight was made through intense light and heavy flak. Machine gun, 20mm and 88mm fire was clearly visible. Casualties among the parachutists from AA fire were light.

The regiment jumped in the following order - 1st Bn, 2nd Bn, 3rd Bn, on DZ "T", 2000 yards north of GROESBEKE, HOLLAND. 1st and 2nd Bns were dropped on the DZ. 3rd Bn was dropped 700 yards southeast of the DZ. Lifts were bunched on the drop facilitating prompt assembly.

Initial enemy resistance on the DZ was negligible, amounting to fire from a few widely scattered AA crews and some isolated labor troops. Generally, the assembly was made without enemy interference.

Drop time was 1328, 17 September 44. All units were 90 percent assembled and enroute to objectives by 1500 hour. The 1st and 3rd Bns had captured their objectives at 1855 hour, 17 September 44. The 2nd Bn met more determined resistance and was on its objective at 2030 hour, 17 September 44.

From this point on the action of each battalion constitutes a separate account and will be given below.

A. - 1st Battalion: 17 September to 24 September 1944

The 1st Battalion, 508th Parachute Infantry, commanded by Lt. Colonel Shields Warren, Jr., landed on DZ "T" (765585) and assembled rapidly. The battalion had moved to and occupied its assigned initial objective in the vicinity of DE PLOEG (725594) by 1830 hour, five hours after landing. This operation involved a march through enemy territory to an objective three miles from the assembly area.

At 2030 hour, 17 September, Companies A and B moved into the town of NIJMEGEN, to seize the road bridge across the WAAL RIVER, while Company C remained in position holding the high ground at DE PLOEG upon entering the town. Companies A and B met strong resistance from the enemy garrison supported by armored vehicles. The attack was made with no prior reconnaissance, based on information from Dutch civilians that NIJMEGEN was practically defenseless.

After two hours of street fighting in the dark, the action had become localized to platoons, squads, and even smaller groups.

The night of D Day, 17 September, found the 1st Bn deployed as follows: Bn CP in the vicinity of 731591. Company A followed by Company B, attacking to seize the NIJMEGEN highway bridge, had reached and was fighting in the parkway at 716625. A platoon of Company C plus the Bn S-2 Section, by a different route and at an earlier hour had advanced to and fought in the same parkway. This unit returned to Company C and the Bn CP respectively at 0800 hour, 18 September. Company C, less one platoon, was in battalion reserve in the vicinity of the Bn CP.

After bitter street fighting during the night 17-18 September, Company B had pushed through the Company A position to vicinity 708621 by daylight. Shortly after dawn Company A was in the process of reorganizing to push the attack to the final objective when a strong German attack developed on the south regimental flank in the WILER area. The Germans were already beginning to overrun the glider landing zone there. At 0800 hour 1st Bn was ordered to send Company C to the vicinity of GHOOTE VLIJERENBERG (747584) to hold the high ground at that point and to secure a line of departure for a contemplated counter-attack to clear the landing zone. Company A and the 81mm mortar platoon returned to the DE PLOEG area, reorganized, and moved out to the southeast prepared to either attack to clear the landing zone or to move east and attack the NIJMEGEN bridge in conjunction with Company G which was making good progress towards the bridge from the southeast. Company B remained in possession of the park at 716625.

By this time Captain Adams and a platoon of Company A, still in NIJMEGEN, had reached and destroyed what is believed to be the control room for the demolition of the bridge. Captain Adams and this platoon were cut off, surrounded, and remained in NIJMEGEN, eventually rejoining their battalion on 22 September. During the time they were cut off, this force was fighting constantly, engaging a superior German force.

On the glider landing zone Company D was engaged in bitter fighting with a much larger German force. By 1100 hour, 18 September, the enemy had surrounded Company D and was threatening to overrun the regimental supply dump. The regimental S-4 had organized the supply personnel into a fighting unit and was evacuating his supplies under enemy fire. The seriousness of the situation necessitated prompt and forceful action.

The 1st Bn was ordered to attack without delay to drive the enemy from the landing zone with the KAMP-LAGEWALD road-the battalion objective. Company B moved from NIJMEGEN to DE PLOEG to rejoin the remainder of the battalion. From there Colonel Warren moved his unit to the line of departure at GHOOTE VLIJERENBERG, now secured by Company C.

At 1230 hour the battalion attacked, Companies B and C abreast, Company C on the right. The CP group followed in the center at 300 yards, with Company A following Company B at 400 yards, in battalion reserve. Emerging from the woods 600 yards northwest of VOXHIL, the companies encountered heavy small arm fire but quickly pushed beyond the first high ground. A Bn CP was established in the vicinity of 762578. Continuing the attack at a run, Companies B and C cleared enemy opposition in the vicinity of VOXHIL-VOSSENDAAI, 7757. Company A, less one squad which cleared the high ground on the left flank (vic of 764583),

pushed rapidly up WALDGRAAF ROAD to the vicinity of VOSSENDAAL-WYLER (761583). The 1st Bn seized its objective at 1400 hour, as the gliders were coming in to land.

In this action the battalion killed approximately 50 Germans and captured 149. The battalion also neutralized 16 20mm guns which had been firing on the landing zone. Up to this point losses were light, due to the speed of the attack. (Four KIA in the CP group, two KIA and five KIA in the rifle companies).

Two squads on the left flank in the vicinity of 763583 reported that an indefinite number of Germans were moving from the vicinity of ALTHORST (767587).

The Bn CO had Company A organize a defensive position in the vicinity of the high ground 200 yards northeast of the WALDGRAAF ROAD near 763583. Company B occupied the high ground in the vicinity of VOXHIL, 767573-765567. All companies established an outpost system 200 to 800 yards in front of the MLR before dark. Bn CP was established in vicinity of 767575. Company C made contact on the right flank with the 505th Parachute Infantry in the vicinity of KAMP (763563).

During the night and early the next morning the line was extended to vicinity of TEUFELS BERG (764597) - ALTHORST (767587) - high ground (763583) - high ground (765576), with a platoon roadblock at WYLER and a point at 778580. Company E took over the VOXHIL area on the right flank.

Principal features of this series of quickly changing events were:

- (1) The excellent control of all echelons of the battalion from the time of the drop through the period of this narrative.
 - (a) The rapid movement to and occupation of the first objective.
 - (b) The daylight withdrawal from the town in the face of German resistance.
 - (c) The rapid move to a directionally opposite objective.
 - (d) The attack from the correct area after a 2000 yard deployed march, much of it through heavy woods.
 - (e) The dashing attack, almost on a run, for 1000 to 1200 yards in the face of 20mm, 40mm, and small arms fire.
 - (f) The prompt reorganization and movement without casualty to a chosen defense line, followed by prompt outposting and digging in.
- (2) The excellent timing in employment of the battalion reserve for exploitation of a reeling enemy on the landing zone.
- (3) The rapid decisions and orders of the Bn CO, who after an all night street fight, throughout the next day, vigorously led the battalion on a rapid approach march followed by a fast attack and reorganization.
- (4) The movie-thriller sight of landing gliders on the LZ as the deployed paratroops chased the last of the Germans from their 16 20mm guns.

At 1530 hours on the 19th CO Company A (Lt Polley commanding in the absence of Captain Adams, who was still fighting in NIJMEGEN) was alerted for an attack on HILL 75.9. Company A at this time consisted of 2 officers and 42 men from the original company plus an attached platoon of Company G numbering 34 men and 1 officer. At 1600 hours the Bn CO ordered Company A to seize and hold HILL 75.9 and establish a roadblock at its base, where the BAD WYLER causeway met

the main highway (765598).

The attached platoon of Company G had been beaten off the hill three times during the morning by an estimated company of German paratroopers. With the enemy on the eastern, western and northern slopes of HILL 75.9 Lt. Foley led his company through the woods, approaching the crest from the south and arrived at the LD undetected. 200 yards south of the crest Company A deployed and charged the crest at a run. The Germans on the summit were literally yelled out of their holes, but recovered on the slopes and fought bitterly from positions on the hillside. They counterattacked repeatedly, supported by eight LMG's, but the men of Company A, fighting from hole to hole, gradually drove them down the very steep hill.

At 1800 hours on the 19th Company A's five light machine guns were emplaced on the crest, from where they fired on the Germans as they fled north across the open ground and southeast down the highway to WYLER. A Company lost ten men killed (all shot in the head) and seven wounded. Enemy dead littered the hill-sides. At the foot of the hill the enemy left three motorcycles, two staff cars, a truck in running order and another truck which was damaged, two intact 20mm cannon with 300 rounds of ammunition, thirty odd rifles, and most of their miscellaneous individual equipment. At twilight the company reorganized and took up positions in the foxholes vacated by the enemy. Owing to the long battalion front (approximately 2000 yards) Company A was almost isolated from the remainder of the battalion, and it was extremely easy for the enemy to infiltrate in force through the wooded hills around the company. During the night, however, a carrying party of twelve men under Lt. Kelly (Bn 3-4) reached the hill with ammunition. In the morning Company C, on Lt. Col. Warren's order, flushed the area around DEVIL'S HILL, seizing 12 prisoners who had fled from the hilltop toward HOLLAND instead of into GERMANY during the previous days' attack. The prisoners evacuated our wounded. Two British M-10's approaching from the 3rd Bn area, picked up 18 wounded Germans in the area who had been unable to retreat with their company.

At the same time that Company A was completing the capture of HILL 75.9 Company B, less one platoon, was attacking WYLER. After driving out the German garrison, estimated at one company, Company B quickly reorganized and established a defensive position and a roadblock at the main junction in the town. The roadblock was reinforced with two 57mm AT guns. At daylight the following morning four prisoners were captured in the houses or the village.

At approximately 0800 hour, on the 20th, a German truck carrying supplies and 10 men approached the road block from the southeast. One of the 57mm guns fired and a MG fired on the truck. The truck was disabled and all except three Germans, who escaped along a road ditch into the woods, were killed. At about 0810 a motorcycle approached from the same direction. The rider saw the demolished truck, turned and rode away before he could be killed. At 0845 hours enemy infantry, estimated at one company, was seen moving across the open ground from southwest to northeast at a distance of about 800 yards from the roadblock. The enemy was partially concealed by the heavy mist and moved out of sight in the hedgerows and ditches towards GERMANY. At 0930 hours the roadblock received ten rounds from an enemy artillery piece (88mm or 75mm) located in ZYFFLICH, GERMANY (7859). Artillery fire was adjusted on the gun position by 300 radio and no more fire was received from there. At 0950 hours the roadblock received fire from two enemy 20mm guns located in ZYFFLICH, and from enemy MG's at 792587. At the same time it was discovered that troops (estimated two companies of Infantry) were advancing from the north and northeast. An artillery barrage was called for immediately and it broke up the enemy attack on both fronts. About