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REPORT



Combined

AIRBORNE

TROOP CARRIER

maneuvers



Gen. E. Bodeker Maj. A.C.

January 1944

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Instructors Reading this Document

Name J. M. V. A. File No. _____ Date 2/1/45

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[Signature]
E. S. JOHNSTON
Colonel, Infantry

SEP 18 1945

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REPORT
OF
COMBINED
AIRBORNE-TROOP CARRIER
MANEUVER

JANUARY 5-9, INCL.

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Report
of
COMBINED AIRBORNE-TROOP CARRIER MANEUVER
Camp Mackall, North Carolina

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SECTION I

REPORT

OF

COMBINED AIRBORNE - TROOP CARRIER MANEUVER

Camp Mackall, North Carolina

Summary of Maneuver

- General
- Purpose
- Scope
- Troops Engaged
- Description

REPORT OF

COMBINED AIRBORNE-TROOP CARRIER MANEUVER

January 5 - 9, 1944

Summary of Maneuver

GENERAL

1. A combined Airborne-Troop Carrier Maneuver was conducted in the North Carolina maneuver area in the general vicinity of Camp Mackall, North Carolina during the period of 5 January 1944 to 9 January 1944, inclusive.

PURPOSE

2. a. Training of Airborne and Troop Carrier Staffs in planning, supervising and conducting Airborne operations.

b. Training of Airborne and Troop Carrier Units in air movement, rapid assembly and attack by combined arms during both day and night.

SCOPE

c. a. Duration of five days.

b. Employment of four departure bases.

c. Flight by Troop Carrier Planes over a circuitous route of 300 miles to reach the objective area and return flight of 300 miles.

d. Landing and assembly of at least one-half of Airborne Units at night.

e. Reinforcement, resupply, evacuation and other support prior to D/4 effected by air and air landing.

TROOPS

4.

<u>BLUE</u>	<u>RED</u>	<u>TASK FORCE</u>
17th A/B Div	88th Gli Inf Regt	Staffs of A/B & TCC
60th TCW	2d Bn, 541st Procht	135th QM Co (Truck)
Det 1st Tact Air Div	Inf Regt	410th QM Co
882d A/B Eng Avn Bn	465th Gli FA Bn	Co "C", 95th Sig Bn
	446th AAA AW Bn	715th Ord Co
	Co "C", 129th A/B	*560th Ambulance Co
	Eng Bn	Prov MP Co
	Co "A", 714th Tank	Prov Service Bn
	Bn	Hq Co, A/B Command

DESCRIPTION

5. a. A joint staff composed of representatives of the Airborne Command and I Troop Carrier Command was organized to initiate preparations for the maneuver. This Staff controlled administrative arrangements, prepared the tactical situation and issued instructions to the participating units for the conduct of the maneuver. In addition, it functioned as a higher headquarters during the actual maneuver.

b. The timing of operations was based on 6 January 1944 as D-day, H-hour being 0500.

c. The night movement of the 17th Airborne Division to its landing area under blackout conditions was accomplished by four groups of the 60th Troop Carrier Wing. Two of these groups, each moving in separate serials, towed 150 gliders, of which 100 were double-towed by one group and 50 single-towed by the other. All planes carried paratroopers. The double-towed serial landed approximately one hour earlier than the single. Landings were made in eleven areas not previously prepared for such purposes. Initial landings were made at 2230 6 January 1944. During the period 2230 6 January until 0815 7 January 1944, 4157 Airborne troops were landed. This represents approximately 55% of the total personnel which was air transported.

d. The first tactical objective of the Division was the capture of the Camp Mackall Airfield. This was accomplished prior to daylight 7 January. At the same time certain parachute elements were charged with the mission of capturing the town of Aberdeen to deny its use to Red Troops. The remainder of the Division was air landed in the area by the morning of D+1. The entire Division was then developed for coordinated action.

e. The Wing utilized 308 C-47 Transport Planes and 250 CG-4A Gliders operating from four bases, Laurinburg-Maxton, Pope, Lumberton and Florence. Its planes flew 300 miles from their respective bases to the landing or drop areas, and returned to their bases over a similar 300-mile route.

f. Of the 250 gliders participating in the Maneuver, 225, or 90%, landed in the designated glider landing areas.

g. Personnel transported in parachute drops, glider landings and air landings totalled 7536.

h. Equipment and supplies air-transported totalled 1428 1/3 tons. This included 75 1/4-ton trucks and 21 1/4-ton trailers by glider; 184 1/4-ton trucks and 150 1/4-ton trailers by C-47 Airplanes.

2. were due to ground accidents

1. The casualties during the maneuvers were 3 fatalities, 81 injuries and 106 hospitalized due to severe weather conditions (sleet, snow, ice and rain).

j. Separate reports covering all phases of the maneuver together with recommendations and conclusions are attached as annexes to this report.

CONCLUSIONS

6. The summarizing conclusions are

a. The Airborne Division can be air-transported during hours of darkness and can be landed in a predetermined tactical area.

b. After air landing it can be assembled and developed for coordinated offensive or defensive action.

F. W. EVANS

Brigadier General, U. S. A.

LEO DONOVAN

Brigadier General, U. S. A.

DIRECTORS

SECTION II

Report

of

COMBINED AIRBORNE - TROOP CARRIER MANEUVER

Camp Mackall, North Carolina

APPENDIXES

- A - Orders and Instructions Issued by
Maneuver Headquarters
- B - Observers Bureau
- C - General Staff Sections
- D - Special Staff Sections
- E - Blue Forces
 - 1. 17th Airborne Division
 - 2. 60th Troop Carrier Wing
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 - 1. 88th Glider Inf Regt, 13th AB Div
and attached units
- G - Umpires
- H - Photographs
- I - Maps

APPENDIX A

Orders and Instructions Issued by
Maneuver Headquarters

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CUTTERTON

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

16 December 1943.

MANEUVER SITUATION NO. 1 (BLUE)

1. RED Forces are disposed for defense as shown on the attached map.

2. BLUE Forces renew the attack on D-Day at H-Hour (0500). Direction LILLINGTON - TROY. The 1st Infantry Division (BLUE) advancing along the LUMBER BRIDGE - ABERDEEN Road will relieve the 17th Airborne Division in the vicinity of PINE BLUFF by D plus 4 Days.

3. The 17th Airborne Division (BLUE) transported by successive air lifts will secure the CAMP MACKALL airport and prevent enemy withdrawal through the PINE BLUFF - ABERDEEN Area. Initial landings at H minus 8.

The 60th Wing (TCC) (BLUE) operating from Airbases #1 (POPE), #2 (LUMBERTON), #3 (LAURENBERG), #4 (FLORENCE) will transport the 17th Airborne Division to the MACKALL - PINE BLUFF area by successive air lifts. (Airbases #1, #2, #3, and #4 are assumed to be 300 miles east of their actual location).

Units of the 1st Tactical Air Division will support the operations of the 17th Airborne Division.

2nd Infantry Division, (BLUE) ferried by 61st Wing (TCC) in successive air lifts, will land at CAMP MACKALL Airport, beginning D plus 1. Ferrying will be completed within 48 hours. The 2nd Division will assist the 17th Airborne Division in preventing the withdrawal of the enemy through the ABERDEEN - PINE BLUFF Area.

4. Resupply and evacuation of the 17th Airborne Division during the period D to D plus 4 days between Airbases and Divisional area by 60th Wing. Supplies to and evacuation from Airbases by Task Force.

5. Troops shown in the situation are both actual and imaginary.

a. The following actual units (BLUE) will participate in the maneuver;

17th Airborne Division
60th Troop Carrier Wing
Signal Company Wing
Pigeon Detachment Wing
438th Troop Carrier Group
439th Troop Carrier Group
440th Troop Carrier Group
441st Troop Carrier Group
882nd Airborne Engineer Aviation Battalion
Air Transport Unit.

Units of 1st Tactical Air Division
Task Force Units
135th MI Co (Truck)
410th MI Co

Maneuver Situation No. 1 (Cont'd)

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Provisional MP Co
Provisional Service Battalion
94th Signal Battalion
715th Ordnance Company

b. All other troops (BLUE) named in this situation are imaginary.

6. Based on situation (BLUE) stated above, orders will be issued by Task Force (Maneuver Headquarters).

By command of Brigadier General DONOVAN:

H. J. Dierhoffer
H. J. DIERHOFFER
Captain, A. G. D.,
Adjutant General.

1 Incl: Situation Map. (see MAPS)

DISTRIBUTION

"A", "C", "E", "F", "G".

"C" Special

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[REDACTED] GUTTHROAT

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

MANEUVER SITUATION) 16 December 1941.
: Red (To be issued to
NUMBER.....1) RED units only)

1. Major BLUE Forces have advanced to the general line
FAYETTEVILLE - WILLOW SPRINGS - MIDDLESEX.

17th Airborne Division (BLUE) is assembling at air-
bases, #1 POPE: #2 LUMBERTON: #3 LAURINBURG: #4 FLORENCE.
(Airbases assumed to be 300 miles east of indicated map
location).

Units of the 1st Tactical Air Division (BLUE) and an
Airborne Engineer Battalion (BLUE) are reported to be supporting
the (BLUE) operations.

2. RED Units are disposed as shown by red overprint on
attached map. RED Units at CAMERON - TROY - and at the MACKALL
ROCKINGHAM and KNOLLWOOD Airports are actual and will part-
icipate in the maneuver. All other RED Units named in this
situation are imaginary.

3. Combat Team (RED) 13th Airborne Division consists of:

Commander - Colonel Joe A. Hinton

- 88th Infantry Regiment (Glider) (1st Bn motorized)
- one Battalion 541st Parachute Infantry
- 465th Glider Field Artillery Battalion
- Company "C", 129th Engineer
- Tank Co, 714th Tank Battalion
- 446th ~~AW~~ AW Battalion.

Detachment from the Combat Team, 13th Airborne Division, not
larger than one company and one battery antiaircraft artillery
each are on defense duty at satellite airfields - ROCKINGHAM
and KNOLLWOOD and MACKALL.

4. Based on the above situation, the following orders
are directed;

a. Combat Team 13th Airborne Division and detachment
thereof will be initially disposed for defense as indicated in
paragraph 3, above by 2100, 4 January. No movement forward
from these positions prior to 2100, 5 January.

b. After this time, the mission of the 13th Airborne
Division Combat Team is as follows:

- (1) Hold and defend CAMP MACKALL Airport.
- (2) Seize and hold open road net through PINE BLUFF
ABERDEEN.


[REDACTED]

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c. Supply of Combat Team will be by 13th Airborne Division using supply route, FORT BRAGG - LEMON SPRINGS - CAMERON.

d. Further orders will be issued to Combat Team Commander directly by Maneuver Headquarters or through Chief Umpire (RED).

By command of Brigadier General DONOVAN:


H. J. DIETENHOFER
Captain, A. G. D.
Adjutant General

1 Incl: Situation Map (SEE MAPS)

DISTRIBUTION

"A", "B", "E", "F", "G"
"C" Special

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

18 December 1943.

E. C.)
:
No....1)

Maps: 1/20,000 - Troy 22, 23, 24, 28, 29, 30, 34, 35, 36, Sanford
19, 25, 26, 31, 32 sheets.
Rockingham 4, 5, 6, 10, 11, 12, Laurinburg 1, 2,
7, 8 sheets.
1/32,500 - Troy, Candor, Vass, Powelton, Jackson Springs,
Southern Pines, Rockingham, Hamlet, Laurinburg
sheets.

1. a. See Situation Map and Intelligence Annex, Annex No. 1.

b. BLUE Forces will continue the attack on D - Day. See
Maneuver Situation No. 1 (BLUE) and Situation Map attached. The BLUE
1st Division will relieve airborne units in the vicinity of ABERDEEN
on D plus 4.

2. The Combined Airborne-Troop Carrier Task Force will attack
on D - 1 day, secure the road net in the ABERDEEN Area and prevent
movement of RED troops through that area either in withdrawal to the
north and west, or in attempts to reinforce REDS in contact east of
Lake X.

Boundary between Divisions to be announced.

3. a. The 17th Division with 682nd Airborne Engineer Aviation
Battalion attached for air movement only, will move by successive air
lifts from POPE FIELD - LAURENSBURG - VA TOM ARMY AIR BASE - LUMBERTON
and FLORENCE, land beginning at or about H - 7 hours, D - 1 day in the
area WEST END - HORNHAM - SLED PIT - SCOTTSBORO PHILLS, capture and secure
CAMP MACKALL AIRFIELD for subsequent air landing of the 2nd Division and
prevent any movement of RED troops through ABERDEEN and the vicinity.

b. The 2nd Infantry Division will move, air ferried, from
begin landing at H + 32 hours at CAMP MACKALL and
assist the 17th Division in preventing RED movement through ABERDEEN and in
and in securing CAMP MACKALL and the CAMP MACKALL - ABERDEEN Road
for supply traffic.

c. The 60th Troop Carrier Wing will transport the 17th
Division by successive air lifts from departure bases listed in
paragraph 3a. above, landing the initial elements at or about H - 7
hours. Upon completion of the 17th Division movement, the 60th Wing
will transport supplies and equipment as directed by this head-
quarters.

d. The 61st Troop Carrier Wing will transport the 2nd Infantry Division from
departure bases
transport the 2nd Infantry Division, making the first air
landing at CAMP MACKALL AIRPORT at H + 32 hours.

e. The 882nd Airborne Engineer Aviation Battalion attached to the 17th Division for Air Movement will, upon landing at CAMP MACKALL, be attached to the 60th Wing and repair and maintain CAMP MACKALL AIRFIELD for air landing serials throughout the operations.

f. Provisional Group, 1st Tactical Air Division will execute preparation missions prior to D - 1 day (See Air Support Annex, Annex No. 2) and missions on call from this headquarters after initial landings at H - 7 hours.

x. (1) D day - 6 January 1944.

H hour - 0500.

(2) Radio silence will be imposed except for PATFINDER communication until initial landing of 17th Division.

(3) Reconnaissance prior to D day will be limited to that possible by use of bomber and fighter aircraft.

(4) Complete plans, to include Field Orders and Movement Tables, will be submitted to this headquarters prior to 23 December 1943.

4. See Administration Order No. 1 (Annex No. 3)

5. a. See Signal Annex (Annex No. 4)

b. Command Posts.

Task Force - Camp Mackall

17th Division:

Prior to Air Movement - Laurinburg - Maxton AAB
In forward area - To be reported

2nd Infantry Division - -----

60th Troop Carrier Wing - Laurinburg-Maxton AAB

61st Troop Carrier Wing - -----

Provisional Group, I AD - Camp Mackall

DONOVAN

OFFICIAL:

DeGAVRE
G-3

~~SECRET~~
F. O. No. 1 (Cont'd)

4 Incls:

- Incl #1 - Annex No. 1 - Intelligence and Situation Map
- Incl #2 - Annex No. 2 - Air Support
- Incl #3 - Annex No. 3 - Administration Order No. 1
- Incl #4 - Annex No. 4 - Signal

DISTRIBUTION: A, C, E, F, G.

ANNEX NO 1 TO FIELD ORDERS NO. 1

INTELLIGENCE

Headquarters A/B-TC Task Force
Camp Mackall, North Carolina
1000 20 December 1943, EAT

Maps: Situation Map as of 5 Jan 1944-2000-1/500,000; Strategic Map, Charlotte 1/500,000; Photo Mosaic, Maneuver Area 1/62,500; Photo Mosaic, Landing Areas 1/20,000; contact prints, DZs and check points 1/5000.

1. SUMMARY OF THE Y SITUATION.

- a. Disposition as shown by Situation Map.
- b. Line of contact held by two Inf. Divisions North and East of LAKE X and one Infantry Division South and West of LAKE X.
- c. Estimated one glider Infantry Regiment (minus one Battalion) reinforced with Battalion FA located in vicinity of CAMERON. Infantry Companies and 40 mm AA Batteries located approximately as shown on Situation Map.
- d. An armored unit, estimated one Company light Tanks as shown on Situation Map.
- e. The Red Forces are conducting a Fighter School at Charlotte. An estimated one (1) squadron of fighter type aircraft can be placed in operation on one (1) hour's notice.
- f. Local conditions--The area of operations is a coastal plain composed of white sandy soil on south grading into red soil in northern section on approximately E-W line Biscoe, Pinehurst, Fort Bragg. It is intersected by numerous small streams flowing southward or southeastward, generally through swampy areas densely wooded and difficult of passage. Whole area is about 50% covered with second growth pine and oak, much of which is dense and difficult of penetration, but some areas are sparse and offer little cover. LAKE X has marshy boundaries and maximum depth of 40 feet.

US Highway #1 and Seaboard Air Line RR traverse the area on NE-S Line from Raleigh, North Carolina through Sanford, Aberdeen to Rockingham, and State Highway #211 and Aberdeen and Rockfish RR traverse the area in NE-SE Line from Biscoe, Aberdeen, Raeford to Lumber Bridge. N-S US Highway #220 borders area on west from Biscoe south to Rockingham, but is separated from left flank of Blue Force by Drowning Creek except for 1 hard surface and 2 soft roads and 1 railroad (SAL) with bridges. State Highway #37 and Atlantic Coast Line RR from Sanford to Fayetteville border area on east with no crossroads East and West until reaching US Highway #15 between Raeford and Fayetteville in the southern sector.

A few secondary sand roads 5 to 10 miles apart grid the general area with small additional wood and farm roads. The red clay roads of northern areas will be difficult for mechanized forces in wet weather, while the sand roads of the middle and southern areas are considered passible for mechanized forces in all weather, but treacherous because of soft shoulders and ditches. This is considered the dry season and all unsurfaced roads can be

expected to be passable barring continuous precipitation.

As previously indicated the principal approaches to the center of the area (Aberdeen) are from the northwest, Highway 211, and the northeast, Highway 21. A hard surface road State Highway 27 crosses the northern sector in an E-W direction 25 miles north of Aberdeen, the intervening area being heavily wooded and difficult of passage, and is traversed by small streams flowing northward into Deep River and by the headwaters of the Little River flowing eastward through Lanchester to Fayetteville. Two second grade clay roads connect Highways 27 and 211. It is not expected that heavy equipment can cross this valley in force.

Natives within the area are friendly and will welcome invasion of Blue Forces. The area is primarily one of farming, producing tobacco, corn, and cotton. A number of peach orchards are found in the area with trees growing to a maximum height of 10 feet. The population of the towns within the area is as follows:

Aberdeen	1,332
Carthage	1,129
Fayetteville	13,049
Hoffman	589
Pinebluff	750
Pinhurst	1,600
Raeford	1,303
Rockingham	2,906
Sanford	4,253
Southern Pines	2,554
Vass	602
West End	600

Road Distances Between Points:

Nackall to Knollwood	16 miles
Raeford to Knollwood	21 miles
Sanford to Knollwood	23 miles
Rockingham to Knollwood	33 miles
Troy to Knollwood	30 miles
Troy to Nackall	40 miles
Troy to Rockingham	40 miles
Cameron to Nackall	20 miles

2. ESSENTIAL ELEMENTS OF INFORMATION.

- Will enemy aviation attack our airdromes prior to, or during the air movement? If so, when, where, and with what force?
- Will enemy aviation attack our planes during the air movement? If so, when, where, and with what force?
- Will enemy defensive AA or other ground installations interfere with our air movement or with our landing, unloading, and take-off from the objectives? If so, when, where, and with what force?

[REDACTED]

d. Will enemy ground reserves be able to disrupt continuity of A/B landings? If so, when, where, and by what means?

3. WEATHER CONDITIONS.

a. Weather forecast will henceforth be furnished daily by teletype in code throughout period of mission.

4. MEASURES TO OBTAIN INFORMATION.

a. Aerial reconnaissance and photography; pilot and air crew interrogation; PW interrogation; friendly agents.

5. MEASURES FOR HANDLING PRISONERS, CAPTURED DOCUMENTS, MATERIEL:
AND THE SUPPLY OF MAPS.

a. PW, captured documents, and materiel will be evacuated from Division Headquarters to Task Force Headquarters.

b. Maps, distribution:

To be determined later.

6. COUNTER-INTELLIGENCE.

a. Standing operating procedures.

7. INTELLIGENCE REPORTS AND DISTRIBUTION.

a. Periodic reports will be rendered as of 0900 and 2100 each day by Headquarters 60th Wing TCC and 17th A/B Division to Headquarters A/B-TC Task Force. Form G, Page 61, FM 1-40 will be followed in the preparation of these reports by T/C, and Form 16, Page 114, FM 101-5 will be by A/B.

OFFICIAL:

DONOVAN

FURTICH
AC/S, G-2

AGNEW
AC/S, A-2

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CUTTHROAT

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

23 September 1943.

AIR SUPPORT ANNEX

ANNEX #2 TO FC #1

NOTE: Annex No. 2, Air Support Annex will be published at a later date.

DONOVAN

OFFICIAL:

MCCULLOUGH
Air Support Officer

DISTRIBUTION:

"A", "C", "E", "F", "G".

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A O # 1 to Accompany F O # 1

Maps: Same as F O # 1

1. SUPPLY

a. Rations:

(1) Supply points:

(a) No change until concentration at departure bases.

(b) Army Supply Point #1 - Bragg - For all units located at Pope or Bragg until departure - opens day of arrival in area. (See Annex #1)

Army Supply Point # 2 - Maxton - For all units located at Maxton and Lumberton until departure. Opens day of arrival in area. (See Annex # 2)

Army Supply Point # 3 - Florence - For all units located at Florence until departure. Opens day of arrival in area. (See Annex #3)

Army Supply Point # 4 - _____ 2nd Inf Division & 61st TC Wing (Imaginary) opens D + 1.

(c) Airheads for aerial resupply subsequent to landing - Camp Mackall Airport & DZs as requested by 17th Airborne Division on and after D plus 1.

(2) Schedule of distribution:

Ration cycle: Breakfast, Dinner, Supper

Time of issue: Army Supply Points - 17th AB Div - 0800 to 1100
Other Units - 1300 to 1700
Airhead - As requested by 17th AB Div.

(3) Plan:

(a) Field rations "A" at Army Supply Points 1, 2, 3, 4.

(b) Field rations "C" and "K" at airheads by aerial resupply.

(c) Two (2) field rations "C" or "K" and one (1) field ration "D" per individual will be carried by 17th Airborne Division and attachments upon landing. To be drawn from present supply points.

(d) Aerial resupply will be accomplished by 60th TC Wing on and after D plus 1. Schedule to be announced later.

(e) Ration strength for units drawing on Army Supply Points 1, 2, 3, will be submitted to this headquarters daily at 0800, beginning four (4) days prior to day of arrival in vicinity of each departure base, indicating strength

[REDACTED]
[REDACTED]
at each Army Supply Point.

b. Ammunition:

- (1) Supply points:
- (a) No change until D plus 1.
 - (b) Airheads for aerial resupply subsequent to landing - Camp Mackall Airport and D Zs as requested by 17th AB Div., on and after D plus 1.
- (2) Credits for 17th AB Div. and attached units for period D plus 1 to D plus 4, five (5) units of fire on call from this Headquarters.
- (3) 17th AB Div and attachments will land with sufficient ammunition to meet all requirements until resupply by this Headquarters begins on D plus 1.
- (4) Aerial resupply will be accomplished by 60th TC Wing on and after D plus 1. Schedule to be announced later.

c. Gasoline and Oil:

- (1) Supply Points:
- (a) No change until concentration at departure bases.
 - (b) Motor vehicles:
 - Army Supply Point # 5 - Pope - For all units located at Pope until departure - opens day of arrival in area. (See Annex # 1)
 - Army Supply Point # 6 - Maxton - For all units located at Maxton and Lumberton until departure - Opens day of arrival in area. (See Annex # 2)
 - Army Supply Point # 7 - Florence - For all units located at Florence until departure - Opens day of arrival in area. (See Annex #3)
 - Army Supply Point # 8 - _____ 2nd Inf Div and 61st TC Wing - Opens D - 1.
Airheads for aerial resupply subsequent to landing - Camp Mackall Airport and DZs as requested by 17th AB Div on and after D plus 1.
 - (c) Aircraft:
 - Army Supply Point # 9 - Pope - For all aircraft located thereat - Opens day of arrival at base

Army Supply Point # 10 - Maxton - For all aircraft located at Maxton and Lamberton - Opens day of arrival at base.

Army Supply Point # 11 - Florence - for all aircraft located thereat - Opens day of arrival at base.

Army Supply Point # 12 - _____ 60th TC Wing - Opens D - 1.

- (2) Full tank plus an additional five (5) gals of gasoline will be carried by each motor vehicle upon landing.
- (3) Aerial resupply will be accomplished by 60th TC Wing on and after D plus 1.
- (4) Estimated requirements for gasoline and oil for period day of arrival at departure base to D plus 4 for each Army Supply Point and Airhead to be submitted to this Headquarters by 22 December 1943.

d. Class II: - No change

e. Class IV:

- (1) No change for AAF & Service units.
- (2) No change until D plus 1 for other ground units.
- (3) Airhead for aerial resupply - Camp Mackall Airport and DZs as requested by 17th AB Div on and after D plus 1.
- (4) Aerial resupply will be accomplished by 60th TC Wing on and after D plus 1.

f. Water:

- (1) Water obtained locally. (See Annex # 1, 2, 3, and 4)
- (2) All water in landing area is non-potable until treated. Halazone tablets will be obtained thru normal supply channels.

g. 17th AB Div will submit requirements for aerial resupply, for Div and attachments, indicating quantity and place and time of delivery of all classes for period D plus 1 to D plus 4 by 27 December 1943.

2. EVACUATION:

- a. No change until 1200
- b. 60th TC Wing will provide emergency medical service for units of 17th AB Div at departure base.

c. Casualties:

- (1) Medical clearing station will be established by 17th AB Div at Camp Mackall Airport. After Airhead is secure for evacuation of casualties by air.
- (2) Medical service for all activity at the Airhead will be furnished by the 17th AB Div.
- (3) 60th TC Wing will evacuate casualties from Mackall Airport to Maxton AAB.

d. Burials: By units.

e. Salvage and captured materials will be evacuated by 17th AB Div to Camp Mackall Airport. All returning aircraft otherwise empty will be utilized for evacuation of salvage and captured materials.

f. P. W. enclosure will be established by 17th AB Div at Camp Mackall Airport and evacuated by 60th TC Wing in returning aircraft.

g. Priority of air evacuation; (1) Personnel casualties (2) P. W. (3) Captured material (4) Salvage.

3. TRAFFIC:

a. Circulation:

- (1) MSR: Maxton - Lumberton U.S. # 74 (See Annex # 5).
Between bivouac area and Supply Points to be selected by 17th AB Div and reported to this Headquarters.
- (2) Routes for movement to departure airfields (See Annex # 5).
- (3) Provost Marshall, this Hq, will mark all routes and supply installation as necessary in rear areas.
- (4) As directed by 17th AB Div in landing area.
- (5) Traffic priorities; (1) Troop movements (2) Supplies

b. Restrictions:

- (1) Blackout lights after 1800 D - 1.

c. Control Stations: (See Annex # 5).

d. Construction and maintenance of roads:

- (1) Rear areas - no change.
- (2) Landing area - by 17th AB Div until relieved.

e. Maintenance of Camp Mackall by 882nd AB Eng Avn Bn.

UNCLASSIFIED

4. SERVICE TROOPS AND TRAINS

a. Bivouacs:

- (1) 410th Airborne Quartermaster Company - Maxton
- (2) 715th Airborne Ordnance MM Company - Maxton
- (3) 135th QM Company (truck) - Maxton
- (4) Prov Service Bn - Maxton
- (5) Prov MP Company - Mackall
- (6) 560th Medical Ambulance Co, Separate (c) - Mackall

b. 410th AB QM Co, 715 AB Ord MM Co, Prov Service Bn, and 135th QM Co (truck) will concentrate, package and load supplies for aerial delivery by 60th TC Wing.

c. Prov MP Co will provide traffic control in departure area as directed by this Headquarters.

d. 560th Medical Ambulance Co. Motor, Separate (c) will provide ambulance service as directed by this Headquarters.

e. Field Trains of Combat units to remain in departure area and to rejoin combat units in landing area only upon direction of this Headquarters.

5. PERSONNEL

a. Straggler line and collection points as directed by 17th AB Div and 2nd Inf Div.

b. Mail: 17th AB Div - delivery by air as requested.
Other units - no change.

c. Available bivouac areas in vicinity of departure airfields (See Annex # 1, 2, 3, and 4).

d. Strength Report - Submitted this Headquarters daily 1200 - effective D - 1.

e. Replacements:

- (1) Airborne Units - none until relieved.
- (2) Troop Carrier units - handled through Air Force Channels.
- (3) Other units - no change.

UNCLASSIFIED

f. Rear echelon personnel will not accompany combat elements and will remain in departure area.

A O # 1 Cont'd.

6. MISCELLANEOUS

a. Headquarters of all rear echelons will be reported to this Headquarters by 1200 D - 1.

b. G-4 periodic report to be submitted to this Headquarters as of 0001 by 0600 daily, beginning D - 2. Abbreviated report indicating status of supply, evacuation, and flyable aircraft will be sent by radio or teletype to be followed by complete written report.

c. Fraternization with civilians, unlawful seizure of property, and abuse of individuals in occupied territory, is forbidden. Unit commanders will instruct all men in proper behavior, field sanitation, and that proper distinction be made between measure of military necessity and deliberate misconduct.

DONOVAN

OFFICIAL:

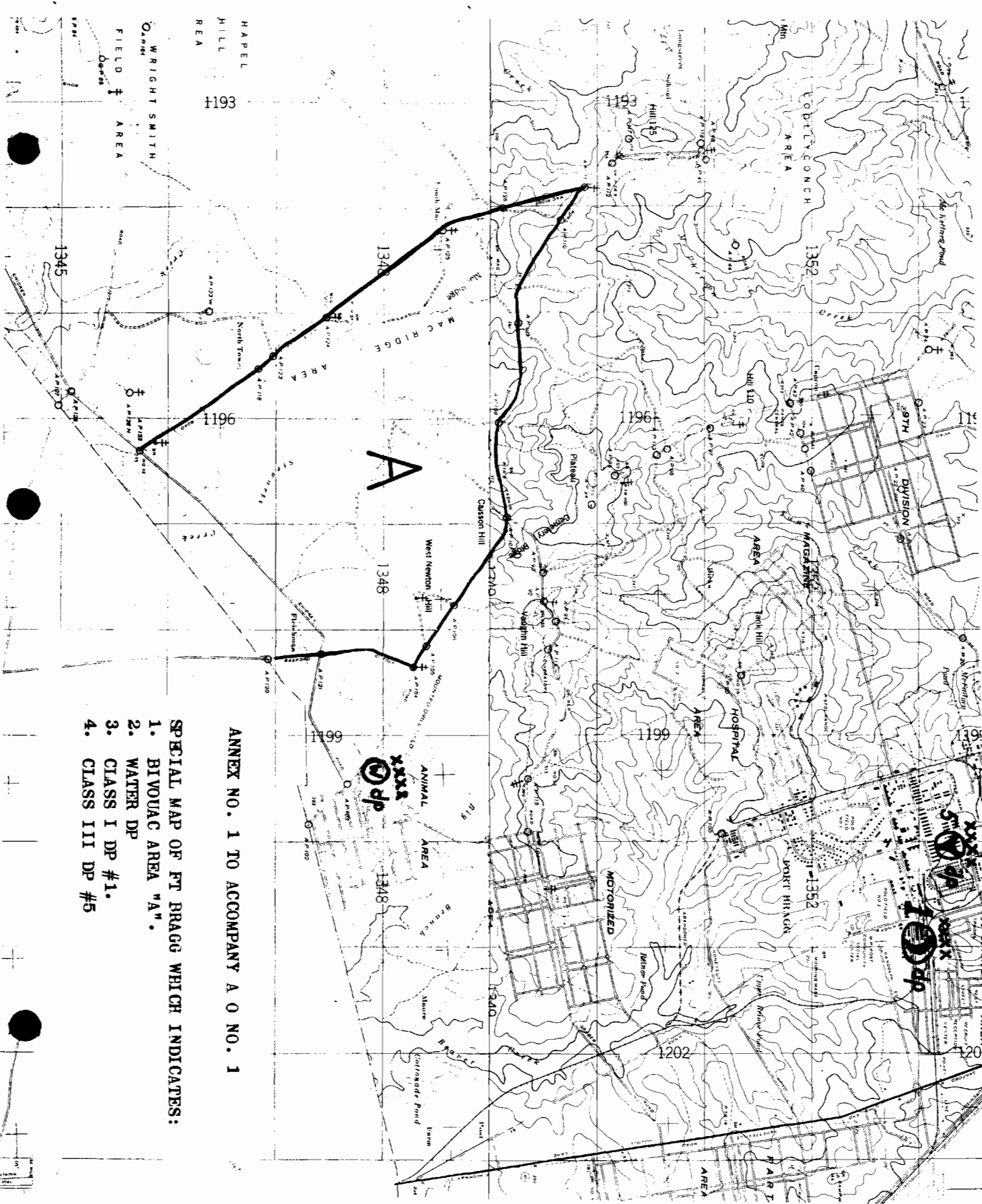
Bassett
Bassett
G-4

Eagan
Eagan
A-4

5 Inclosures:

- Incl No. 1 - Annex # 1
- Incl No. 2 - Annex # 2
- Incl No. 3 - Annex # 3
- Incl No. 4 - Annex # 4
- Incl No. 5 - Annex # 5

UNCLASSIFIED



HAPPEL
HILL
REA
1193

WRIGHTSMITH
FIELD AREA

A

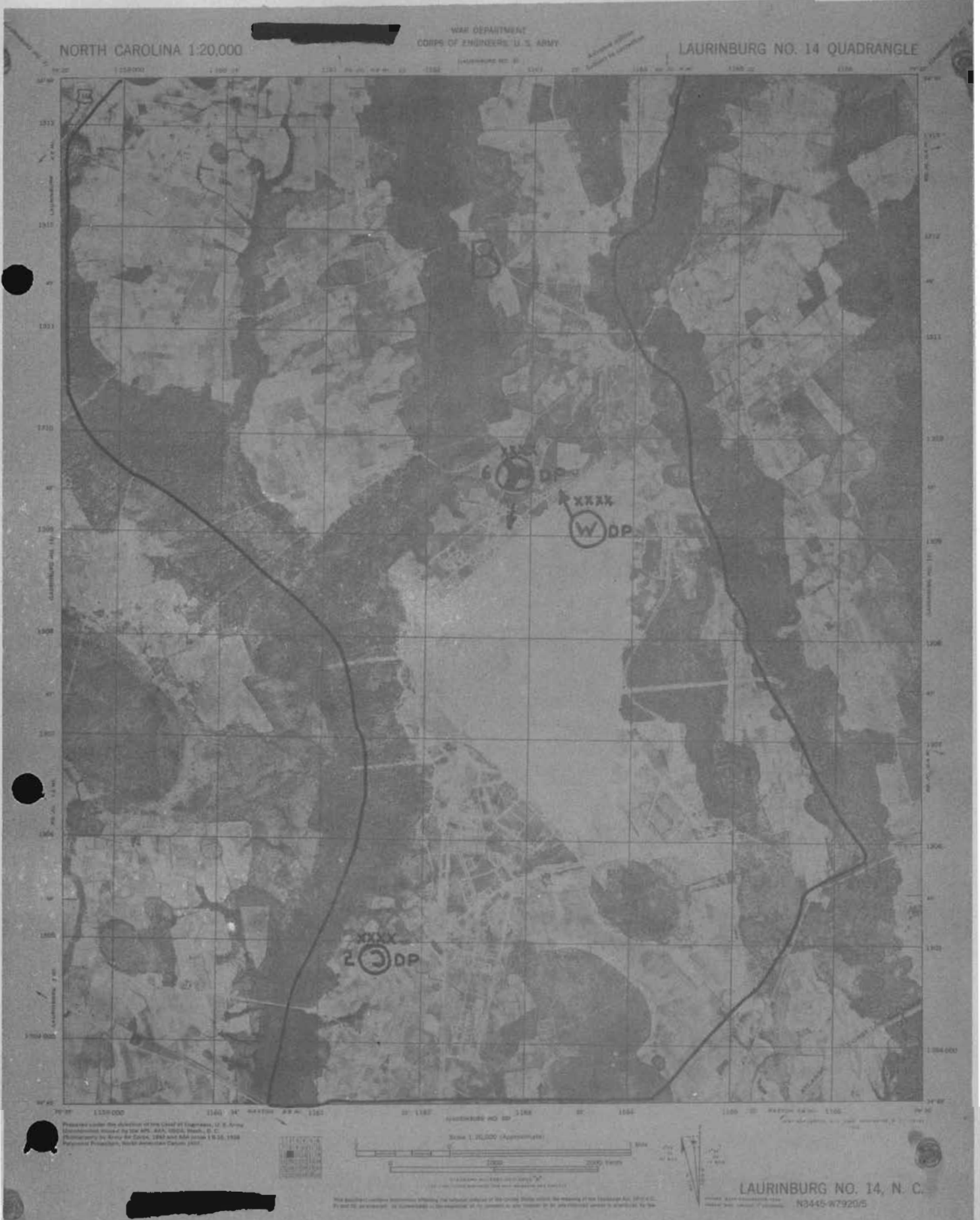
- ANNEX NO. 1 TO ACCOMPANY A O NO. 1
- SPECIAL MAP OF FT BRAGG WHICH INDICATES:
1. BIVOUAC AREA "A".
 2. WATER DP
 3. CLASS I DP #1.
 4. CLASS III DP #5



ANNEX NO. 2 TO ACCOMPANY A O NO. 1.

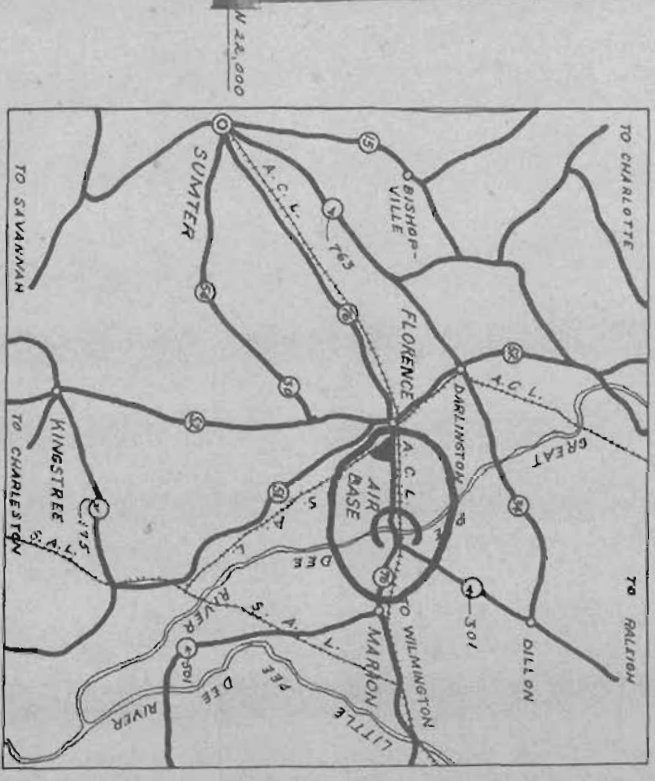
SPECIAL MAP OF LAURINBURG-MAXTON AAB WHICH INDICATES:

1. RIVOUAC AREA "B".
2. WATER DP.
3. CLASS I DP #2.
4. CLASS III DP #6.





- ANNEX NO. 3 TO ACCOMPANY A O NO. 1
- SPECIAL MAP OF FLORENCE AFB WHICH INDICATES:
1. RIVOUAC AREA "C".
 2. WATER DP.
 3. CLASS I DP #3.
 4. CLASS III DP #7.



VICINITY MAP

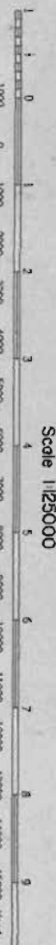
SCALE OF MILES

1:24,000

ANNEX NO. 4 TO ACCOMPANY A O NO. 1

SPECIAL MAP OF LUMBERTON AAB WHICH INDICATES:

1. FIVOUC AREA "D".
2. WATER DP

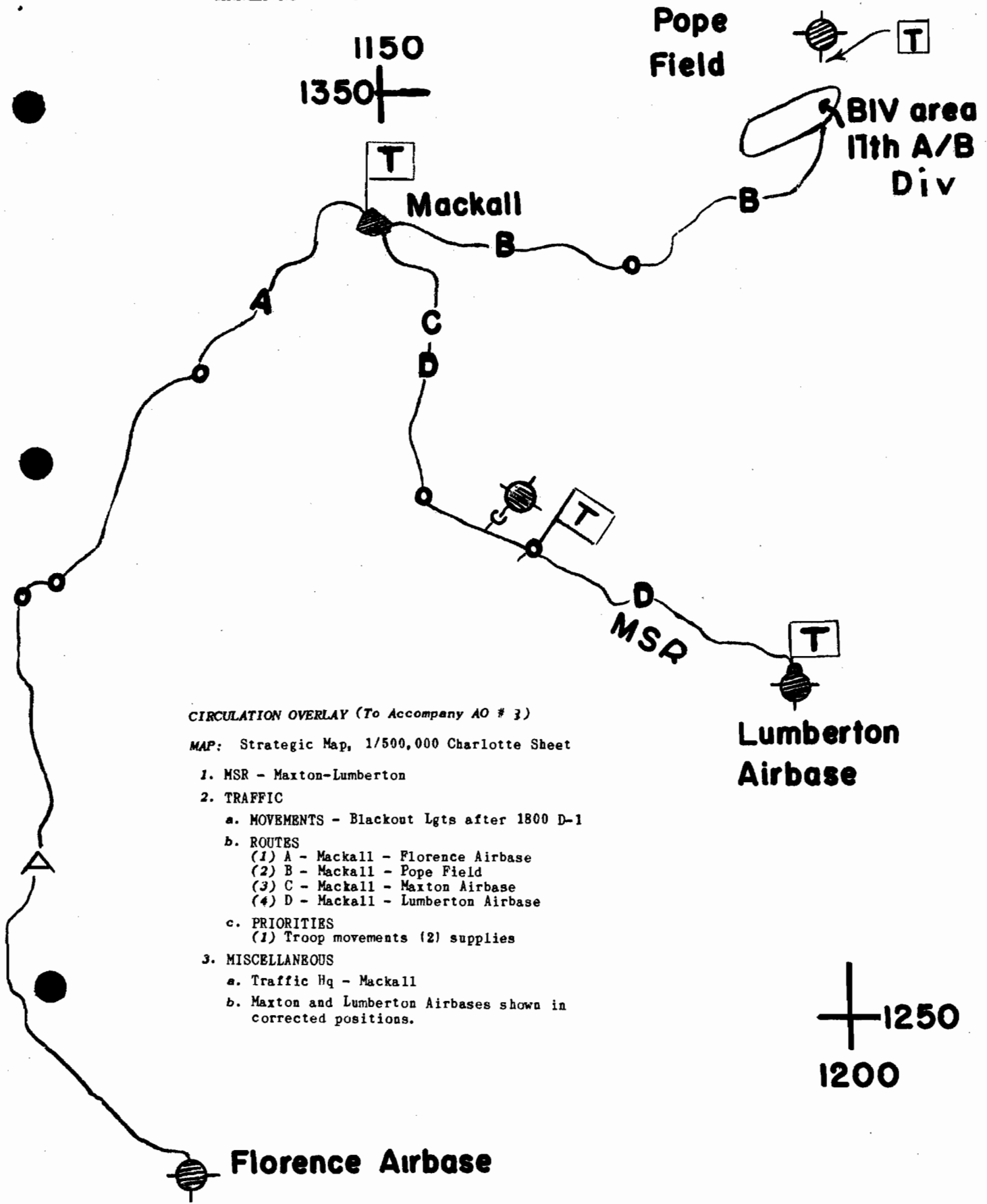


DATUM IS MEAN SEA LEVEL (1929 GEN. ADJ.)
 THIS MAP IS A SPECIAL PUBLICATION NO. 59
 OF THE U.S. GEOLOGICAL SURVEY
 CORRECTIONS TO THIS MAP SHOULD
 BE MADE TO THE CHIEF OF ENGINEERS

ROAD CLASSIFICATION
 THROUGH ROUTES ONLY
 HAND IMPROVED ROADS AND OTHER
 IMPROVED DIRT ROADS
 UNIMPROVED DIRT ROADS

07° 13' 59" N
 79° 13' 59" W
 MAGNETIC NORTH
 TRUE NORTH

30m ENGINEER BATTALION REPRODUCTION PLANT FORT BELLEVILLE VA
 CHANGING 16.9 MI
 WHITFIELD 24.9 MI
 APPROXIMATE MEAN
 DECLINATION 1941
 ANNUAL MAGNETIC CHANGE 0.4-0.1 MILLS
 DECREASE
LAURINBURG, N. C. S. C.
 N343D.W/900/30



CIRCULATION OVERLAY (To Accompany AO # 3)

MAP: Strategic Map, 1/500,000 Charlotte Sheet

1. MSR - Maxton-Lumberton
2. TRAFFIC
 - a. MOVEMENTS - Blackout Lgts after 1800 D-1
 - b. ROUTES
 - (1) A - Mackall - Florence Airbase
 - (2) B - Mackall - Pope Field
 - (3) C - Mackall - Maxton Airbase
 - (4) D - Mackall - Lumberton Airbase
 - c. PRIORITIES
 - (1) Troop movements (2) supplies
3. MISCELLANEOUS
 - a. Traffic Hq - Mackall
 - b. Maxton and Lumberton Airbases shown in corrected positions.

1250
1200

~~UNCLASSIFIED~~
CUTTHROAT
COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

20 December 1943.

SIGNAL ANNEX

ANNEX #4 TO FO #1

NOTE: Annex No. 4, Signal Annex, will be published at a later date.

DONOVAN

OFFICIAL:

HALEY
Signal Officer

DISTRIBUTION:

"A", "C", "E", "F", "G"

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COMBINED AIRBORNE TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

28 December 1943.

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AIR ANNEX (ANNEX #1) To #1

Maps: Strategic - 1/500,000 Situation Map "A"
Mosaic - 1/20,000

I. GENERAL.

a. The I Tactical Air Division has been assigned the area HARTSVILLE, CHARLOTTE, SALISBURY, WINSTON-SALEM, GREENSBORO, FORT BRAGG. Area is approximately 80 miles wide and 100 miles deep. The II and III Tactical Air Divisions have been assigned the areas to the east and west respectively of the I Tactical Air Division.

b. The I Tactical Air Division has under its control, one Tac Recon Gp. (less 2 Sqs) one Ftr Wing (includes one ftr-bomber gp), one light bomb gp, one medium bomb gp and one Tac Control Gp.

c. Since D-22, medium-light and fighter bombers supported by fighters have bombed and strafed enemy airdromes, supply dumps, troop concentrations and railroad centers in the assigned area, principally at CHARLOTTE, SALISBURY, WINSTON-SALEM, GREENSBORO, DURHAM and RALEIGH. This is continued throughout the operation.

2. SPECIAL.

a. On D-1 the following targets are attacked with a view toward isolating the MACKALL area and preventing reinforcements moving down to meet the Airborne landings:

- (1) Highway and railroad bridge 4 miles south of PINE BLUFF.
- (2) Highway and railroad bridge in ABERDEEN.
- (3) Highway and railroad bridge 1 mile south of VASS.
- (4) Highway bridge 6 miles south of CARTHAGE.
- (5) Highway and railroad bridge 4 miles south-west of TROY.
- (6) Highway bridge 5 miles south of TROY.
- (7) Highway bridge 8 miles south-east of MT. GILEAD.
- (8) Two highway bridges and railroad bridge 2 miles east of TROY.
- (9) Road junction and railhead at WEST END.
- (10) Heavy bombing and strafing missions ordered on MACKALL, ROCKINGHAM, TROY, KNOLLWOOD, CAMERON, concentrating on anti-aircraft batteries and troop concentrations.

b. D-1 (night) at H - 4, night area bombing missions are ordered on ROCKINGHAM, TROY, KNOLLWOOD AND CAMERON to hamper enemy movements and as diversions to Airborne drops.

d. D-day. (1) Dawn attacks are ordered on ROCKINGHAM, ELLERBE, CANDOR, WEST END, CARTHAGE and LAKEVIEW.

Annex #2 to F.O. #1, dated 28 December 1943, (Cont'd)

(2) H/2:58, the following strafing missions are ordered:

Read from 6 miles NW of HOFFMAN through ABERDEEN.
Highway #1 from 2 miles SW of MARSTON through ROCKINGHAM.
Road from HOFFMAN to WEST END beginning 1 mile N of HOFFMAN.
KNOLLWOOD area covering Highways #1 and #15 to CARTHAGE and CAMERON.

(3) Smoke screens will be layed $2\frac{1}{2}$ miles and 340 degrees true from MACKALL AIRPORT at H/2:59 and N to S, 2 miles E and 1 mile S of ABERDEEN at H/4:59.

(4) At H/ 4:58 strafing attacks will be ordered on the area N of ABERDEEN covering Highway #1 from ABERDEEN to CAMERON and Highway #15 from ABERDEEN to CARTHAGE. Sufficient air reserve will be maintained on the alert to meet enemy threats to Airborne landings on call of the division commander.

d. Missions for D/1, D/2, and D/3 will be preplanned the previous day as determined by the situation.

e. Fighter cover will be furnished all Troop Carrier and day bombing operations.

f. Tactical reconnaissance will be active throughout the operation.

3. ORGANIZATION.

The following I TAD Air Div units will participate:

Organization	Maneuver Base
411th Bomb Gp (L) (12)	Camp Mackall, N.C.
48th Fighter Bomber Gp (20)	Camp Mackall & Maxton
74th Tactical Rcn Gp (4)	Maxton, N. C.
17th ASpt Com Sq.	Camp Mackall, N. C.
Chemical Det, 8334th Air Opns Co.	Camp Mackall, N. C.

4. CHEMICAL.

Twelve chemical tanks (m-10) will be serviced with smoke (ES) and delivered to the 411th Bomb Gp (L) at Camp Mackall. Servicing will be required on six A-20's.

5. ORDNANCE.

All bombing and strafing missions will be simulated.

6. COMMUNICATIONS.

a. Radio

(1) Air to air. To be announced at a later date.

(2) Ground to ground. 4772.5 kilocycles is the assigned frequency for all I TAD ground communication.

[REDACTED]
Annex #2 to F. O. #1, dated 28 December 1943., (Cont'd)

b. Call Sign. The following call signs are assigned:

- UNCLASSIFIED**
- (1) Maneuver Headquarters Net Control Station, 4JY5
 - (2) Ren Aviation, IG41
 - (3) Maxton Airdrome, G425
 - (4) Air party at CP 17 AB Div, JY41

DONOVAN

OFFICIAL:

DICK
Air Support Officer

DISTRIBUTION

"A", "C", "E", "F", "G".

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COMBINED AIRBORNE TROOP CARRIER MANEUVER HEADQUARTERS

Camp Mackall, North Carolina

21 December 1943

UNCLASSIFIED

ANNEX NO. 4)
to
F. O. No. 1)

MAPS: Mosaic: 1/20,000 Troy (22, 23, 24, 26, 29, 30, 34, 35, 36)
Sanford (19, 25, 26, 31, 32)
Rockingham (4, 5, 10, 11, 12)
Laurinburg (1, 2, 7, 8)

Mosaic: 1/62,500 (Troy, Candor, Vass, Powelton, Jackson Springs, Southern Pines, Rockingham, Hamlet, Laurinburg Sheets.)

1. a. See Situation Map and Intelligence Annex.
b. See Field Order No. 1, par 3 and 5.
c. Axes of Signal Communication (Derby - Mackall)
2. The signal system, outlined in paragraph 3 c, for the attack will be completed by 0900 D-10.
3. The Combined Airborne-Troop Carrier Headquarters will effect the installation, operation and maintenance of the following signal system:
 - a. Message Centers will be established and operative at Maxton, Mackall and Pope by 0800 on D-10; at Florence and Lumberton by 0800 on D-3.
 - b. Scheduled messenger service will be provided by Liaison Aircraft between Mackall, Maxton, Pope, Florence and Lumberton (weather permitting) beginning 1200 30 December 1943.
 - c. Radio stations at Camp Mackall in Task Force Command Nets #1 and #2.
 - d. Visual Communication: See S. O. I.
 - e. Telephone and teletype facilities at Maxton, Mackall, Pope, Florence and Lumberton. The following wire circuits will be installed between these points:
 - (1). One conference TX circuit with a station at Mackall and each Departure Field.

[REDACTED]

(2). Four telephone and two teletype circuits between Maxton and Pope.

(3). Three telephone and one teletype circuit between Maxton and Lumberton.

(4). Two telephone and one teletype circuit between Maxton and Florence.

(5). Four telephone and two teletype circuits between Maxton and Mackall.

f. Pigeons will be supplied and delivered by this Headquarters based upon requests submitted by 30 December 1943.

x. Radio silence will be maintained except for necessary traffic control by Troop Carrier Command, Pathfinder Task Force communication or emergencies until the initial landings on D-1 day.

4. a. Signal Dump Forward Echelon (Mackall); Signal Dump Rear Echelon (Maxton).

b. Signal resupply will be executed by Combined Airborne-Troop Carrier Headquarters in accordance with plan submitted by 17th Airborne Division.

5. a. See Index No. 1 to S. O. I. No. 1.

b. Signal Office of Combined Airborne-Troop Carrier Headquarters will be located at Camp Mackall.

DONOVAN

OFFICIAL:

DEGAVRE
G-5

DISTRIBUTION: A, C, E, F, G.

UNCLASSIFIED

[REDACTED]

~~SECRET~~
COMBINED AIRBORNE-TROOP CARRIER MANEUVER
HEADQUARTERS
Camp Mackall, North Carolina

UNCLASSIFIED

27 December 1943

APPENDIX 1 TO INTELLIGENCE ANNEX 1 TO FO 1

1. Red Forces at CAMERON now estimated as one regiment of Glider Infantry plus a detachment of Quartermaster. Infantry Companies located at KNOLLWOOD, MACKALL and ROCKINGHAM appear to be Parachute Infantry units.
2. AA defenses are as shown on flak overlays, enclosed.
3. a. A high tension line runs SW-NE between landing areas 2 and 3. Power will be cut off and red warning lights will be placed on the 80 foot towers for ten (10) towers on each side of the flight line.
b. Landing area 3 has a sand barrow pit six feet deep, 30 feet long, 90 feet wide at the S-W corner of the area.
c. Landing area 7 has a sand barrow pit on the W side, 5 feet deep, 40 feet wide, 60 feet long.

Incl 1 -- Flak overlays (3)

DONOVAN

OFFICIAL:

AGNEW
A-2

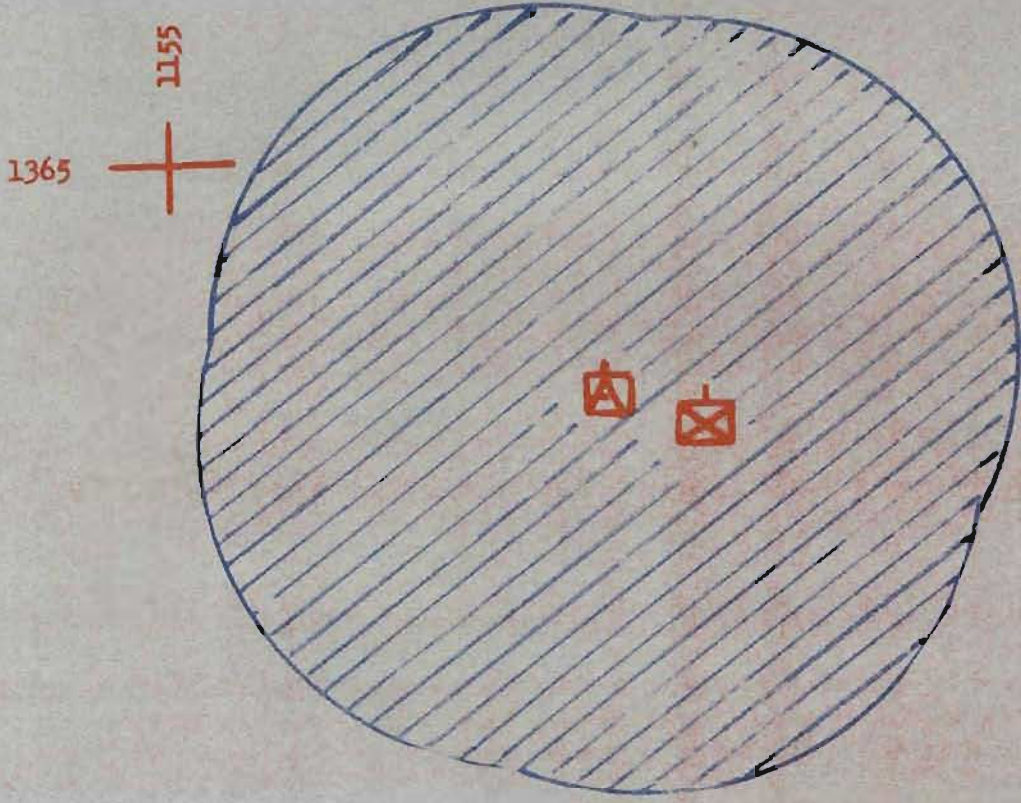
FURTICK
G-2

DISTRIBUTION:
A-C-E-F-G

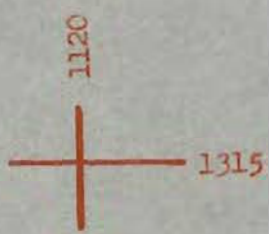
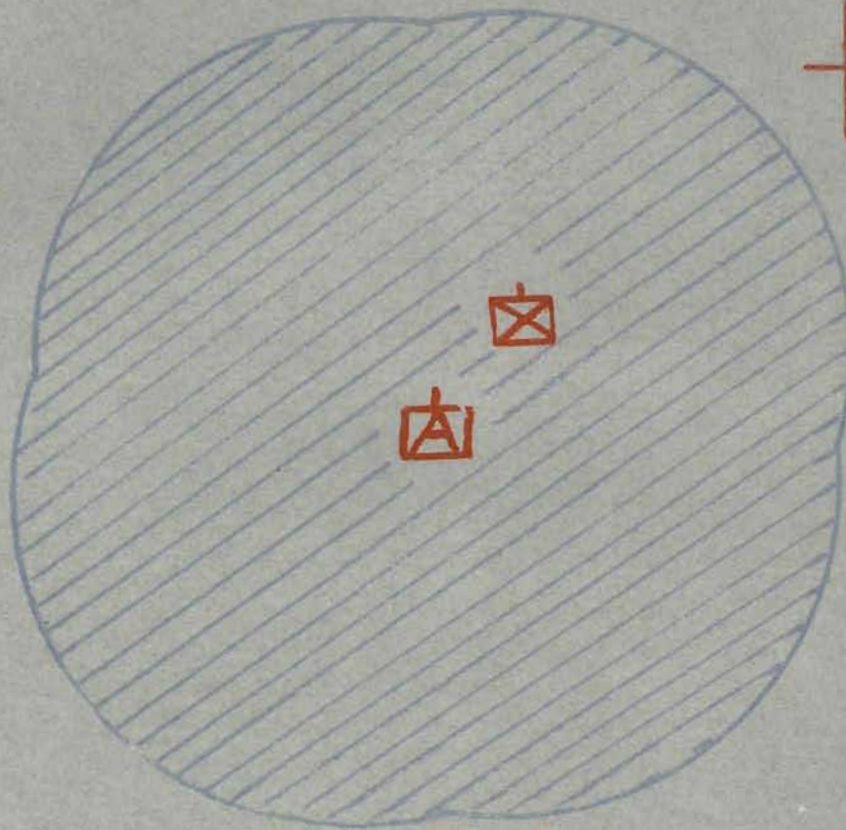
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~~SECRET~~

FLAK OVERLAY

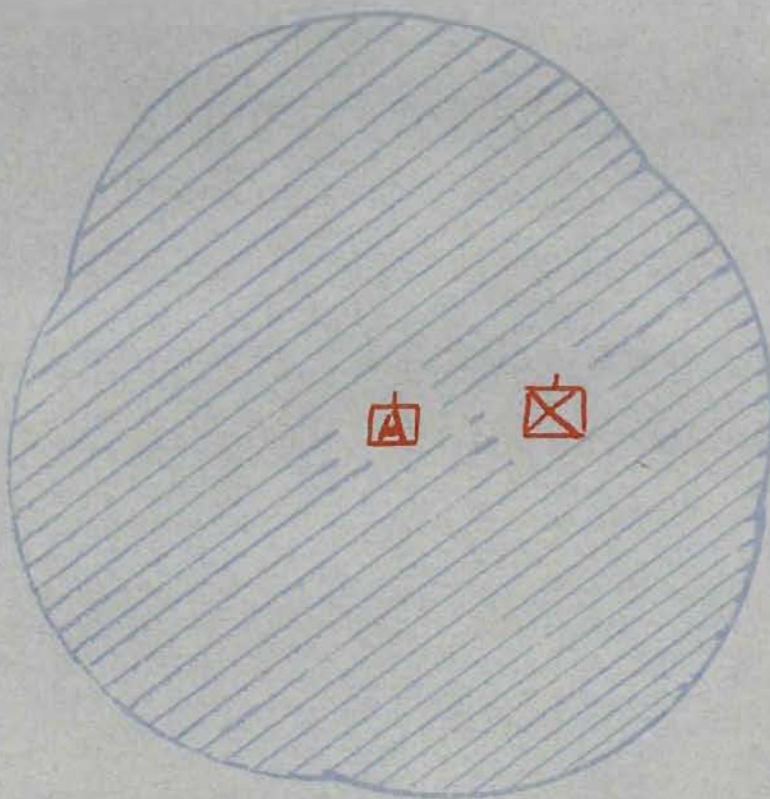


FLAK OVERLAY



MAP 1:62500 PHOTO MOSAIC

FLAK OVERLAY



1330



~~UNCLASSIFIED~~
 CONTINUED AIRBORNE-TROOP CARRIER BATTALION HEADQUARTERS
 Camp Mackall, North Carolina

APPENDIX II TO INTELLIGENCE ANNEX I, FO 1

30 December 1943

1. Weather Forecast

- 1 Jan Clear, becoming overcast in afternoon with good visibility
- 2 " Overcast with rain, low ceilings and poor visibility
- 3-8 " Mostly clear to scattered clouds with good visibility, except for low ceilings and poor visibility on the morning of the third
- 9-11 " Mostly overcast conditions expected throughout this period with low ceilings and poor visibility on the afternoon of the ninth, morning of the tenth and again on the afternoon of the eleventh.
- 12 " Rain, low ceilings and poor visibility
- 13 & 14 " Clear to scattered clouds, becoming overcast late on the 14th
- 15 " Overcast with rain

~~UNCLASSIFIED~~
 SUNLIGHT AND MOONLIGHT CHART FOR 30° W LONGITUDE AND 35° N LATITUDE
 PERIOD JANUARY 1-15

Jan	Civil Twilight	Sunrise	Sunset	Civil Twilight	Moon Rise	Moon Zenith	Moon Set	Moon Phase
1	0753	0826	1815	1843	1241	1840	*	1/4
2	0753	0826	1815	1843	1317	1931	0043*	1/4
3	0753	0826	1816	1844	1352	2018	0146*	1/2
4	0757	0825	1817	1845	1427	2107	0243*	1/2
5	0757	0825	1818	1846	1503	2157	0350*	1/2
6	0757	0825	1818	1846	1542	2246	0451*	3/4
7	0757	0825	1819	1847	1624	2336	0550*	3/4
8	0757	0825	1820	1848	1710		0646*	3/4
9	0757	0825	1821	1849	1759	0024	0738*	F
10	0757	0825	1822	1850	1850	0113	0827*	F
11	0757	0825	1823	1851	1944	0247	0912*	F
12	0757	0825	1824	1852	2038	0333	0951*	3/4
13	0757	0825	1825	1853	2132	0417	1028*	3/4
14	0756	0824	1825	1854	2223	0501	1102*	3/4
15	0756	0824	1827	1855	2322	0538	1134*	1/2

*MOON SET FOLLOWING DAY.
 ALL TIMES ARE EASTERN WAR TIME

- 2. a. Periodic reports will be rendered per paragraph 1, Annex I starting D day.
- b. Reports on enemy activities S.O.P.

OFFICIAL:

ACHEM A-2
 FURTICK G-2

DONOVAN.

DISTRIBUTION:

A-C-E-F-G

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UNCLASSIFIED
 COMBINED AIRBORNE TROOP CARRIER MANEUVER HEADQUARTERS
 Camp Mackall, North Carolina

MANEUVER MEMORANDUM)
 NUMBER.....1)

16 December 1943

1. ANNOUNCEMENT OF MANEUVER. In compliance with letter, Army Ground Forces, subject: "Joint Training of Airborne and Troop Carrier Units", dated 2 November 1943, and letter, Army Air Forces, subject: "Joint Training of Airborne and Troop Carrier Units", dated 2 November 1943, a combined Airborne-Troop Carrier maneuver will be conducted in the Camp Mackall, North Carolina Area during the period 5 January to 9 January 1944.

2. PURPOSE OF MANEUVER:

a. Training of Airborne and Troop Carrier Staffs in planning, supervising, and conducting airborne operations.

b. Training of Airborne and Troop Carrier units in air movement, rapid assembly, and attack by combined arms both during day and night.

3. SCOPE. The maneuver of an Airborne Division (17th Division) for a period of five days. Four departure air bases will be used. The objective area will be reached by a circuitous route of approximately 300 miles. At least one-half of the landing and assembly of airborne units will be made at night. Reinforcement, resupply, evacuation, and other support prior to D plus 4 will be effected by air only.

4. MANEUVER COMMAND AND STAFF. Maneuver Command and Staff will function as a Task Force Headquarters.

Director	Brig Gen LEO DONOVAN, USA.
Co-Director	Brig Gen F. W. EVANS, USA.
Assistant Directors	
Air	Col ERICKSON S. NICHOLS, GSC.
Ground	Lt Col J. C. CROCKETT, GSC.
Administrative Assistant	Lt Col WARD S. RYAN, INF.
A-1	Capt. A. R. BAILEY, AC
G-1	Lt Col C. C. CALDWELL, GSC.
A-2	Major S. C. AGNEW, AC.
G-2	Capt. C. K. FURTICK, INF
A-3	Col A. I. McCULLOUGH, GSC.
G-3	Lt Col C. B. DEGAVRE, INF.
A-4	Major J. D. EAGAN, AC.
G-4	Lt Col J. A. BASSETT, GSC.
G-4 (Asst)	Major T. B. O'CONNELL, INF
A-4 (Asst)	Major James C. BAKER, INF
Adjutant General	Capt. H. J. DIETENHOFER, AGD
Signal Officer, Air	Capt. E. W. HIRSTEAD, AC.
Signal Officer, Gnd	Major WILLIAM E. HORNEY, INF.
Signal Officer, Asst	Major T. F. HALEY, SC.
QM Officer, Air	Major JOSEPH E. HARRIS, QMC.
QM Officer, Gnd	Lt Col J. M. MCKEE, JR, QMC
Field Artillery Officers	Major H. B. HARDEN, JR, FA.
	Capt. ANDREW GORSKI, FA.
Surgeon, Air	Lt Col Dudley A. PFAFF, MC.
Surgeon, Ground	Capt MARSHALL H. BRUCER, MC.
Engineer Officer, Air	Lt Col WALKER
Engineer Officer, Ground	Major ROBERT ALEXANDER, CE.
Asst G-3	Capt CHARLES ABRAMS, INF
Glider Officer	Major L. B. MAGID, AC

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4. (Cont'd)

UNCLASSIFIED

Ordnance Officer	Capt J. C. HUDSON, ORD
Chemical Warfare Officer	Capt J. P. WOODSIDE, INF
Hq Commandant	Capt DREW A. MARTIN INF
Provost Marshall	Lt. Col. SAMUEL ROTH, INF
Visitors Bureau	Maj C. A. DACCERA, AC
Visitors Bureau	Maj R. T. CHRISTIANSON CE
Public Relations Officer	Capt E. MUGRAIL, AC
Public Relations Officer	Capt E. J. FLYNN, PA
Chief Umpire	Lt Col RUFERT D. GRAVES INF
Chief Blue Umpire	Lt Col C. G. SIMENSON INF
Asst Blue Chief Umpire	Capt W. R. WOITROL INF
Chief Red Umpire	Lt Col J. G. Cornett INF
Chief Air Umpire	Lt Col JOHN C. BENNETT AC

5. TROOPS. The following troops will participate in the maneuver:

- a. 17th Airborne Division.
- b. One Combat Team, 13th Airborne Division.
- c. 60th Troop Carrier Wing.
882nd Airborne Engineer (Avn) Battalion.
Air Evacuation Unit.
- d. Signal Battalion.
- e. 410th Quartermaster Company.
- f. 135th Quartermaster Company (Truck).
- g. 715th Ordnance Company.
- h. Provisional Military Police Company.
- i. Provisional Service Battalion, 407th FA Group.
- j. Units of the 1st Tactical Air Division
- k. Headquarters Company, Airborne Command.

6. SUPPLY.

a. Resupply of 17th Airborne Division by agencies of task force during period D to D plus 4. The following supply units are available to the task force for use in connection with aerial resupply of the maneuver units.

- (1) 410th Quartermaster Company.
- (2) 135th Quartermaster Company. (Truck).
- (3) 715th Ordnance Company.
- (4) Provisional Service Battalion, 407th FA Group

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UNCLASSIFIED

b. Supply of the 13th Airborne Division Combat Team will be by the 13th Division over routes to be designated by this headquarters.

7. EVACUATION.

a. Troop Carrier Command will evacuate simulated casualties.

b. Actual casualties will be evacuated by medical units of the Airborne Command.

8. UMPIRES.

a. The Maneuver Directors, acting as Superior Headquarters RED and BLUE, will give the necessary command decisions.

b. Maj. Hauffe, Signal Officer, 13th Airborne Division, is designated Signal Officer of the Umpire Group.

c. Umpiring will be in accordance with FM #105-5.

d. Code name used in connection with maneuver operations: CUTTLEFISH.

9. MAPS.

a. Strategic Map 1/500,000
Charlotte sheet

b. Photographic Aerial Mosaic 1/60,500
maneuver area (9 sheets)

c. Photographic Aerial Mosaic, 1/20,000
Maneuver area (22 sheets)

d. Photographic Aerial Mosaic 1/15,000
part of Maneuver area (2 sheets)

e. Contact Prints and Vectographs 1/5,000
Drop zones and check points

10. SITUATION. Initial maneuver tactical situation, (Red and Blue), will be prepared and issued to troops concerned by the Maneuver headquarters.

11. SECURITY. Documents which should be classified will be marked "Maneuver Secret", Maneuver "Confidential", or Maneuver "Restricted". These documents will remain classified until the termination of the maneuver only. Commanders (RED and BLUE) will take measures to prevent the disclosure of maneuver information (RED or BLUE) to the opposing force.

12. OBSERVERS. Visitors bureau is established in Building T-1820 opposite Maneuver Headquarters. This bureau will furnish housing and administration for observers and official visitors.

UNCLASSIFIED

~~SECRET~~
UNCLASSIFIED

13. Callion. At the end of the maneuver a critique will be held. Time and place of critique will be announced later.

By command of Brigadier General DENOVAL:

H. J. DE TROOPER
Captain, A. G. D.
Adjutant General

OFFICIAL:

H. J. De Trooper
H. J. DE TROOPER
Captain, A. G. D.
Adjutant General.

DISTRIBUTION

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~~CONFIDENTIAL~~

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

MANEUVER MEMORANDUM)

16 December 1943

NUMBER.....1)

UNCLASSIFIED

1. ANNOUNCEMENT OF MANEUVER. In compliance with letter, Army Ground Forces, subject: "Joint Training of Airborne and Troop Carrier Units", dated 2 November 1943, and letter, Army Air Forces, subject: "Joint Training of Airborne and Troop Carrier Units", dated 2 November 1943, a combined Airborne-Troop Carrier maneuver will be conducted in the Camp Mackall, North Carolina Area during the period 3 January to 9 January 1944.

2. PURPOSE OF MANEUVER:

a. Training of Airborne and Troop Carrier Staffs in planning, supervising, and conducting airborne operations.

b. Training of Airborne and Troop Carrier units in air movement, rapid assembly, and attack by combined arms both during day and night.

3. SCOPE. The maneuver of an Airborne Division (17th Division) for a period of five days. Four departure air bases will be used. The objective area will be reached by a circuitous route of approximately 300 miles. At least one-half of the landing and assembly of airborne units will be made at night. Reinforcement, resupply, evacuation, and other support prior to D plus 4 will be effected by air only.

4. MANEUVER COMMAND AND STAFF. Maneuver Command and Staff will function as a Task Force Headquarters.

Director	Brig Gen LEO DONOVAN, USA.
Co-Director	Brig Gen F. W. EVANS, USA.
Assistant Directors	
Air	Col BRICKSON S. NICHOLS, GSC.
Ground	Lt Col J. C. CROCKETT, GSC.
Administrative Assistant	Lt Col WARD S. RYAN, INF.
A-1	Capt. A. R. BAILEY, AC
G-1	Lt Col C. C. CALDWELL, GSC.
A-2	Major S. C. AGNEW, AC.
G-2	Capt. C. E. FURTICK, INF
A-3	Col A. I. McCULLOUGH, GSC.
G-3	Lt Col C. B. DEGAVRE, INF.
A-4	Major J. D. EAGAN, AC.
G-4	Lt Col J. A. BASSETT, GSC.
G-4 (Asst)	Major J. B. O'CONNELL, INF
A-4 (Asst)	Major James C. BAKER, INF
Adjutant General	Capt. H. J. DIETENHOFER, AGD
Signal Officer, Air	Capt. E. W. BIERSTEDT, AC.
Signal Officer, Gnd	Major WILLIAM B. HORNBY, INF.
Signal Officer, Asst	Major T. F. HALEY, SC.
QM Officer, Air	Major JOSEPH E. HARRIS, QMC.
QM Officer, Gnd	Lt Col J. M. MCKEE, JR, QMC
Field Artillery Officers	Major H. B. HARDEN, JR, FA.
	Capt. ANDREW GORSKI, FA.
Surgeon, Air	Lt Col Dudley A. PEAFF, MC.
Surgeon, Ground	Capt MARSHALL H. BRUCER, MC.
Engineer Officer, Air	Lt Col WALKER
Engineer Officer, Ground	Major ROBERT ALEXANDER, CE.
Asst G-3	Capt CHARLES ABRAMS, INF
Glider Officer	Major L. E. MAGID, AC

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4. (Cont'd)

~~UNCLASSIFIED~~

Ordnance Officer	Capt J. C. HUDSON, ORD
Chemical Warfare Officer	Capt J. P. WOODSIDE, INF
Hq Commandant	Capt DREW A. MARTIN, INF
Provost Marshall	Lt. Col. SAMUEL ROTH, INF
Visitors Bureau	Maj C. A. DACCIA, AC
Visitors Bureau	Maj R. T. CHRISTIANSON, CE
Public Relations Officer	Capt E. MCGRAIL, AC
Public Relations Officer	Capt E. J. FLYNN, FA
Chief Umpire	Lt Col ROBERT D. GRAVES, INF
Chief Blue Umpire	Lt Col C. G. SIMENSON, INF
Asst Blue Chief Umpire	Capt W. R. WOITROL, INF
Chief Red Umpire	Lt Col J. G. Cornett, INF
Chief Air Umpire	Lt Col JOHN C. BENNETT, AC

5. TROOPS. The following troops will participate in the maneuver:

- a. 17th Airborne Division.
- b. One Combat Team, 13th Airborne Division.
- c. 60th Troop Carrier Wing.
882nd Airborne Engineer (Avn) Battalion.
Air Evacuation Unit.
- d. Signal Battalion.
- e. 410th Quartermaster Company.
- f. 135th Quartermaster Company (Truck).
- g. 715th Ordnance Company.
- h. Provisional Military Police Company.
- i. Provisional Service Battalion, 407th FA Group.
- j. Units of the 1st Tactical Air Division
- k. Headquarters Company, Airborne Command.

6. SUPPLY.

a. Resupply of 17th Airborne Division by agencies of task force during period D to D plus 4. The following supply units are available to the task force for use in connection with aerial resupply of the maneuver units.

- (1) 410th Quartermaster Company.
- (2) 135th Quartermaster Company. (Truck).
- (3) 715th Ordnance Company.
- (4) Provisional Service Battalion, 407th FA Group

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b. Supply of the 13th Airborne Division Combat Team will be by the 13th Division over routes to be designated by this headquarters.

7. EVACUATION.

a. Troop Carrier Command will evacuate simulated casualties.

b. Actual casualties will be evacuated by medical units of the Airborne Command.

8. UMPIRES.

a. The Maneuver Directors, acting as Superior Headquarters RED and BLUE, will give the necessary command decisions.

b. Maj. Hauff, Signal Officer, 13th Airborne Division, is designated Signal Officer of the Umpire Group.

c. Umpiring will be in accordance with FM #105-5.

d. Code name used in connection with maneuver operations CUTTLEFISH.

9. MAPS.

a. Strategic Map 1/500,000
Charlotte sheet

b. Photographic Aerial Mosaic 1/60,500
maneuver area (9 sheets)

c. Photographic Aerial Mosaic, 1/20,000
Maneuver area (22 sheets)

d. Photographic Aerial Mosaic 1/15,000
part of Maneuver area (2 sheets)

e. Contact Prints and Photographs 1/5,000
Drop zones and check points

10. SITUATION. Initial maneuver tactical situation, (Red and Blue), will be prepared and issued to troops concerned by the Maneuver Headquarters.

11. SECURITY. Documents which should be classified will be marked "Maneuver Secret", Maneuver "Confidential", or Maneuver "Restricted". These documents will remain classified until the termination of the maneuver only. Commanders (RED and BLUE) will take measures to prevent the disclosure of maneuver information (RED or BLUE) to the opposing force.

12. OBSERVERS. Visitors bureau is established in Building T-1620 opposite Maneuver Headquarters. This bureau will furnish housing and administration for observers and official visitors.

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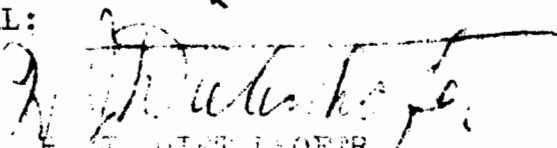
~~UNCLASSIFIED~~
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13. ORILLON. At the conclusion of the maneuver a critique will be held. Time and place of critique will be announced later.

By command of Brigadier General DONOVAN:

H. J. DIETRHOFFER
Captain, A. G. D.
Adjutant General

OFFICIAL:


H. J. DIETRHOFFER
Captain, A. G. D.
Adjutant General.

DISTRIBUTION

A-B-C-D-E-F-G

UNCLASSIFIED

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

MANEUVER MEMORANDUM)

24 December 1943

: INSTRUCTIONS FOR UMPIRES AND OPPOSING FORCES
NUMBER.....2) FOR MANEUVER 5 JANUARY 1944 TO 9 JANUARY 1944.

1. Commencement dates for maneuver:

Situation becomes tactical for the Blue Forces upon movement to departure airfields. Situation becomes tactical for the Red Ground Forces by 2200D - 2.

2. Maneuver control:

a. Control flags will be in accordance with FM 105-5.

b. No restraint of troop movements will be exercised other than that laid down in Maneuver Situation No. 1, Red, and Field Order No. 1, Combined Airborne-Troop Carrier Maneuver Headquarters, Camp Mackall, North Carolina and that imposed by the Maneuver Director or umpires after start of maneuvers.

c. Umpire decisions are final.

3. Contact:

Troops will not come into physical contact with troops of opposing force.

4. Identification:

a. Identification will be in accordance with FM 105-5.

b. Advanced personnel used to mark landing fields or drop zones will bear the same identification as other Blue Forces.

c. Troops will not be permitted to change identification at any time during the maneuver.

d. There will be no aircraft with Red Forces.

5. Restrictions:

a. Troops will not enter private buildings.

b. Gates and fences which are opened for the passage of troops will be closed immediately after to prevent the straying of livestock.

c. Troops entering orchards will avoid damaging same. Troops will avoid entering orchards when practicable.

d. Fire wood, collected by private owners, will not be disturbed.

e. Purchases of food, candy, soft drinks, etc., at roadside stands or restaurants during the maneuver will not be permitted.

6. Filling of fox holes, emplacements, and slit trenches:

a. Slit trenches, fox holes, and other defensive digging will be filled "on the spot" before the unit leaves. Umpires will allow not to exceed thirty (30) minutes for this operation, during which white flags will be displayed. Unit commanders are responsible that this time is requested.

b. Care will be exercised by commanders that emplacements are not constructed on golf courses, lawns or other places which could cause claims against the government.

7. Police of bivouac area:

Unit Commanders will be held responsible for proper police of all areas occupied by their units.

8. Ammunition:

a. Unit Commanders will inspect to see that no ball ammunition is taken into the maneuver areas.

b. Blank ammunition will be used when available in order to promote realism and facilitate decisions by umpires. Blank ammunition will not be fired at personnel at a distance less than twenty (20) yards.

9. Umpire and commercial wire lines:

a. Umpire and commercial wire lines are not to be tampered with in any way. All over-head W-110 (heavy) is umpire line. Tactical wire will not be cut except as authorized by an umpire who will be responsible that wire is not unduly damaged.

b. Individuals will not attempt to remove parachutes from powerlines. This work will be done by the power company representatives.

10. Umpire communication:

Each umpire will operate radios only on assigned frequency except in case of emergency.

11. Combat in towns and villages:

a. Umpires are responsible that opposing forces do not make contact within the limits of any city, town or village. Should such contact occur however, the senior umpire present will immediately halt all action and render a prompt decision based upon relative combat strength. The weaker forces will be required to withdraw sufficiently to assure that contact will be resumed beyond such city or village.

b. Passing foot and motor columns will not be halted within the limits of cities and towns and, to the extent practicable, will use secondary routes in passing through.

12. Patrols:

a. The umpiring of night patrols is an essential and difficult duty. Full credit must be given for skill, cleverness, and aggressiveness, but physical contact must be avoided. Umpires with patrols will not display flags, but should wear white umpire brassards. Umpires will conform to patrols in spirit and actions and will avoid detracting from realistic operations.

b. Raiding patrols: When organizing a patrol, the mission of which would normally involve physical contact, the commander concerned will notify his unit umpire, giving full information. The unit umpire will arrange for an umpire to accompany the patrol and to determine whether, by its action, it could have accomplished its mission. If the umpire rules that the patrol was successful, he will secure from an umpire of the raided organization, and turn over to the patrol, the information it would have secured had actual physical contact been made. Losses will be assessed based on the number of times the patrol was discovered, usually a minimum of one man in each instance.

c. Reconnaissance patrols: Procedure will be the same as for raiding patrols and losses will be assessed as in paragraph b above. If the mission is considered to have been accomplished, information will be furnished the patrol leader by the unit umpire.

d. In the event of a complete and successful ambush, the umpire will rule the entire patrol out of action, permit the ambush forces a maximum of two prisoners, and return the remainder of the patrol to its unit allowing no information to be divulged until such hour as may be designated by the umpire.

e. Upon return to the unit, the patrol umpire will immediately make a report to the company and battalion umpires of all actions and decisions rendered.

12. f. Patrols capturing a vehicle must take the driver with the vehicle. Umpires ruling that a vehicle has been captured will insure that the proper driver is with the captured vehicle.

13. Simulated weapons, aircraft and materials:

a. Personnel: The following (minimum) personnel requirements are considered necessary in order to receive umpire credit:

(1)	<u>TYPE GUN</u>	<u>MINIMUM CREW</u>
(1)	81. .30 MGs (light and heavy).....	3
(2)	60 mm and 81 mm mortars.....	4
(3)	75 mm Howitzers.....	2
(4)	37 mm Gun.....	3

b. Umpire Credit will be given for bombardment and fighter planes as actually present.

c. Materials: Credit for materials will be allowed only when such materials are actually present at the site. Exceptions: Wood blocks may be substituted for TNT, smoke mines or other prepared materials for service mines.

14. Umpire decisions involving the fire of rocket launchers against tanks will be governed by the following.

a. A tank which charges a rocket launcher neutralizes the rocket launcher.

b. A tank is destroyed if it passes within 30 yards of two undiscovered rocket launcher teams which fire on the tank.

15. Captured personnel and vehicles:

a. Captured personnel will be processed as prisoners of War and will be supplied and fed by the capturing forces while in custody.

b. Processed PW will be returned to their own units as follows:

(1) Personnel captured by the Blue Force and who are evacuated by air will be returned administratively to 13th Division at Fort Bragg.

(2) Personnel captured by the Red Force will be processed tactically to the Red PW inclosure and from there will be returned to the 17th Division PW inclosure under control of the chief Red Umpire.

c. Prisoners will not attempt to escape after an umpire rules that they have been captured.

d. Cargo of a captured vehicle will not be molested and only the driver captured with the vehicle will drive it. A vehicle will not be taken without the driver. Care will be exercised that vehicles bearing green flags are not molested.

e. The G-4's of the opposing forces will keep a record of the number of prisoners and vehicles captured as well as their location and may be called upon at any time to provide this information for Maneuver Headquarters.

16. Injuries to personnel:

a. Until Blue Force air evacuation facilities are available, the evacuation of actual sick and injured individuals is responsibility of

the Maneuver Headquarter. A clearing station will be set up at the airhead under the control of Maneuver Headquarters. In addition, ambulances and administrative personnel will be spotted throughout the drop area.

b. For emergencies, call clearing station at the airhead on the umpire wire not to secure an ambulance.

17. Glider recovery:

Glider recovery will continue during the course of the problem. Vehicles engaged in glider recovery will be marked with green flags.

18. Air evacuation of tactical casualties:

a. Simulated casualties, whose tags bear the letter "E", will be evacuated tactically to the airhead and from there evacuated by an Air Evacuation Transport Squadron to the Hinton Army Air Base. Simulated casualties will then be released to the rear echelon of the 17th Airborne Division.

b. Simulated casualties whose tags do not bear the letter "E" will be evacuated tactically to unit and divisional aid and treatment stations.

19. Air umpires:

Air umpires will keep Director Headquarters informed when combat aircraft takes off for attack missions on enemy bases or concentrations. The Chief Air Umpire, in the area to be attacked, will be notified by Director Headquarters, and will act as WBS by notifying troops of approach of hostile aircraft ten (10) minutes prior to expected arrival of planes.

20. Traffic control:

a. Control of civilian traffic will be coordinated through the State Highway Patrol by Maneuver Headquarters.

b. Parking areas for observers' vehicles will be prescribed by Maneuver Headquarters.

c. Transportation used by umpires will cause minimum interference with operations of troops. Such transportation, when not in motion, will be parked off of roads and under cover.

d. Umpires will insure that their personal actions will not reveal actual or intended troop operations.

21. Police control:

a. Disciplinary control in the maneuver area will be maintained by the tactical unit commanders.

b. Unit commanders will be held responsible for preventing enlisted men from congregating in towns and buildings within their zone of action.

22. Use of chemicals:

Nontoxic chemical agents may be employed in combat situations within the limitations of available chemical ammunition supply.

23. Rents and Claims:

In case of damage to private property, umpires will report location and extent of damage to the Rents and Claims Officer in the G-4 Section of Maneuver Headquarters.

Maneuver Memorandum Number 2, dated 24 Dec 43 (Cont'd)

24. Navigational aids:

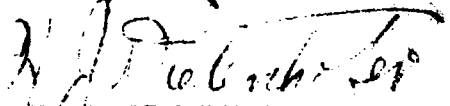
Red forces will be given credit for any navigational aids or operating personnel which they may capture. Under no circumstances, however, due to the risk in life involved, will the actual aids be moved or made inoperative. No action will be taken to interfere with the duties of the personnel operating the navigational aids. Under no circumstances will freedom of movement of the operating personnel be restricted nor will unauthorized persons change the location of any navigational aids.

25. Action prior to maneuver:

a. Unit Commanders will insure that each man is familiar with the contents of this memorandum prior to the maneuver.

b. Particular emphasis will be given to paragraphs 5, 7, 11 and 15, above.

By Command of Brigadier General DONOVAN:


H. J. DIETSCH,
Captain, A. G. D.,
Adjutant General.

DISTRIBUTION: "A", "B", "C", "D", "E", "F", "G",

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

UMPIRE HEADQUARTERS
Camp Mackall, N. C.
23 December 1943

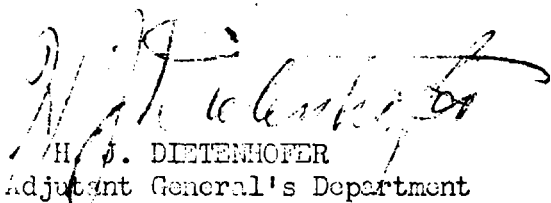
MANEUVER MEMORANDUM NO. 3

UMPIRE SIGNAL INSTRUCTIONS

OPERATION CUTTHROAT

The following signal instructions for umpire communications
are effective IMMEDIATELY FOR Operation Cutthroat.

By Command of Brigadier General DONOVAN:

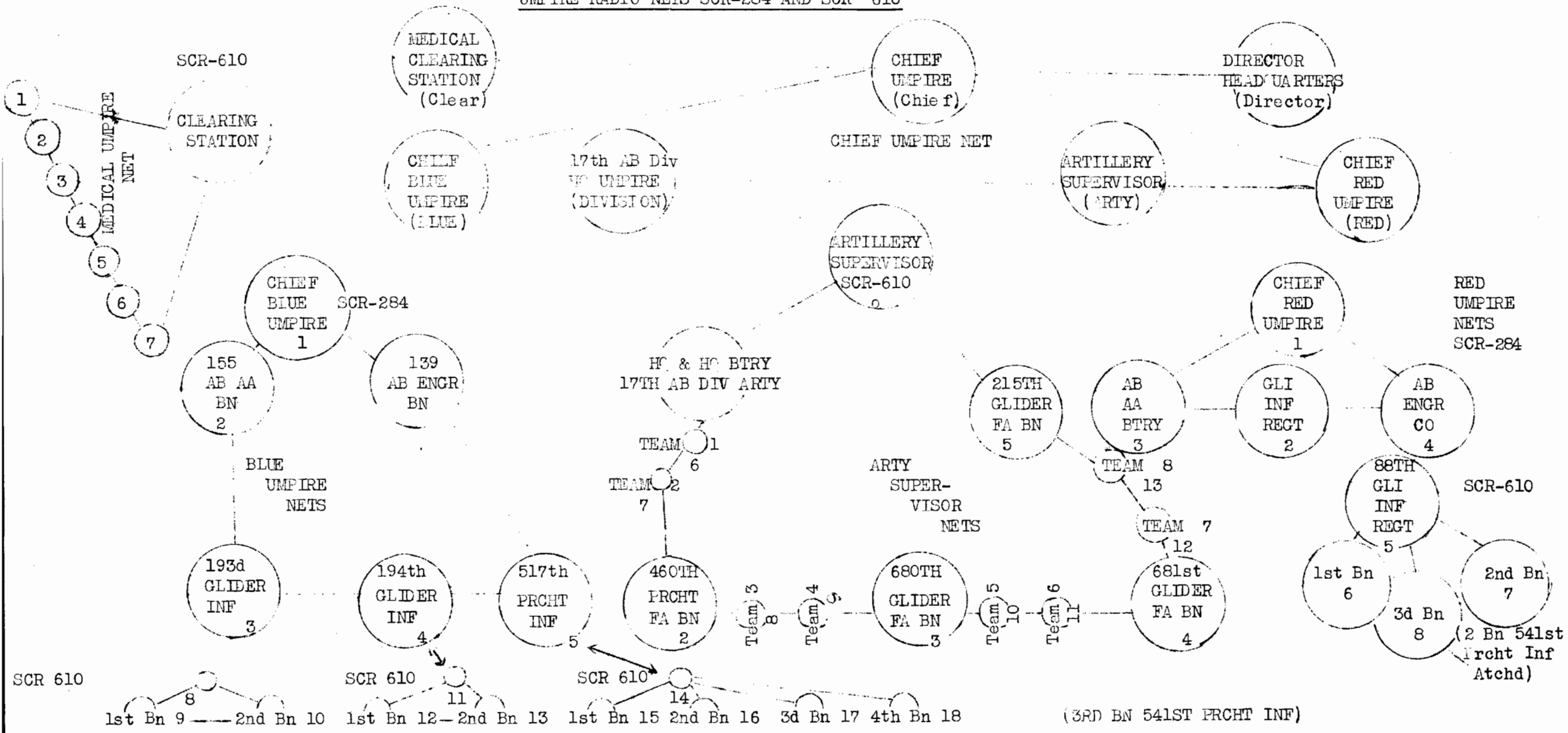

H. J. DIETENHOFER
Captain, Adjutant General's Department
Adjutant General

DISTRIBUTION: "A" and "E",

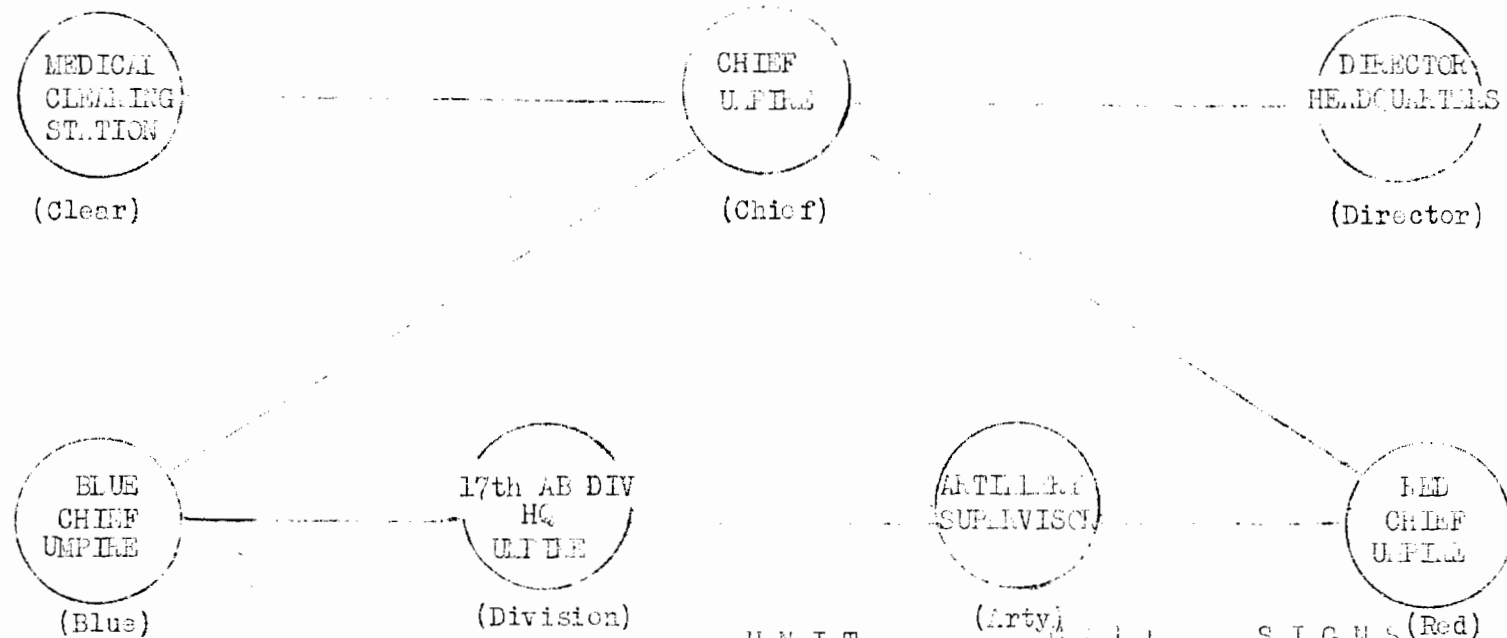
UMPIRE HEADQUARTERS
Camp Mackall, N. C.
22 December 1943.

OPERATIONS CUTTHROAT

UMPIRE RADIO NETS SCR-284 AND SCR 610

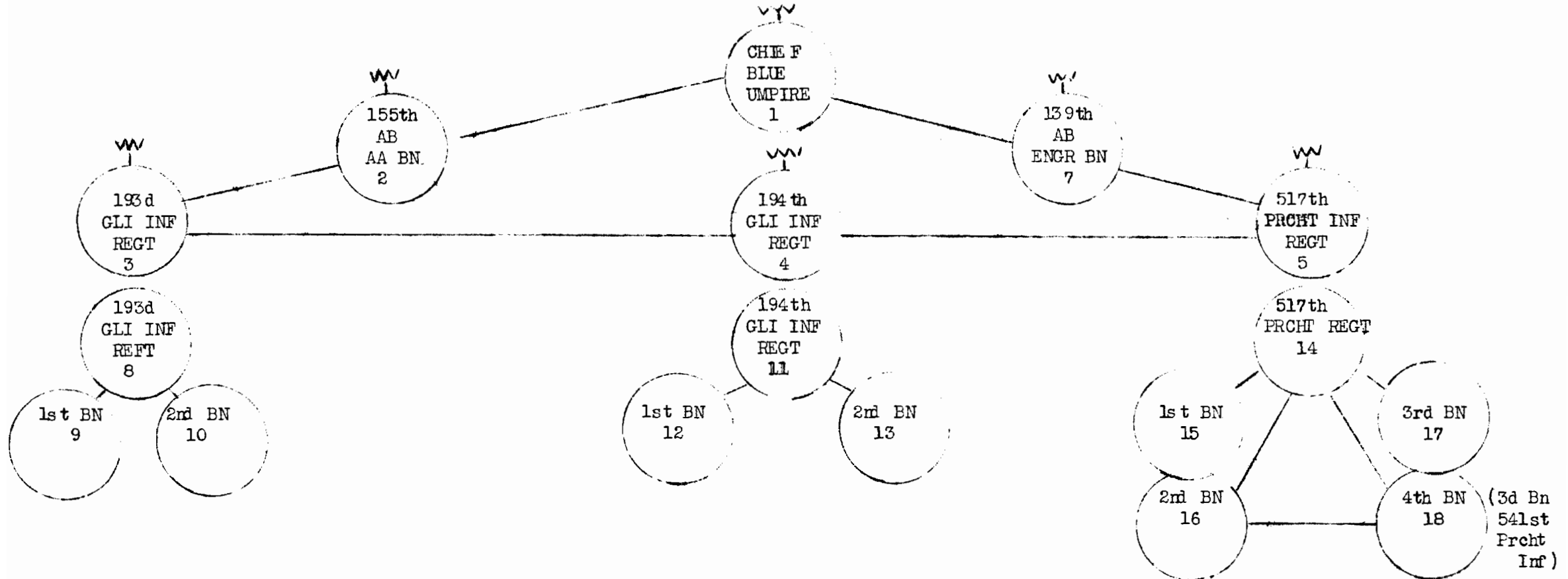


C H I E F U M P I R E N E T (SCR-284)



<u>U N I T</u>	<u>C A L L</u>	<u>S I G N S</u> (Red)	<u>F R E Q.</u>	
	<u>Voice</u>	<u>CW</u>	A	B
DIRECTOR H.Q.	DIRECTOR	DH		
CHIEF UMPIRE	CHIEF	CH	4080	3840
BLUE CHIEF UMP.	BLUE	BLU		
RED CHIEF UMP.	RED	RED		
ARTY. SUPERVISOR	ARTY	ART		
MED. CLR. STA.	CLEAR	CLR.		
17th AB DIV HQ UMP	DIVISION	DIV		

BLUE UMPIRE NETS



CHIEF BLUE UMPIRE NET		
UNIT	CALL SIGN	FREQ.
CH BLUE UMP	BLUE 1	A
155TH AB AA BN	BLUE 2	4450
193RD GLI INF REGT	BLUE 3	
194TH GLI INF REFT	BLUE 4	B
517TH PRCHT INF REGT	BLUE 5	4900
139TH AB ENGR BN	BLUE 7	

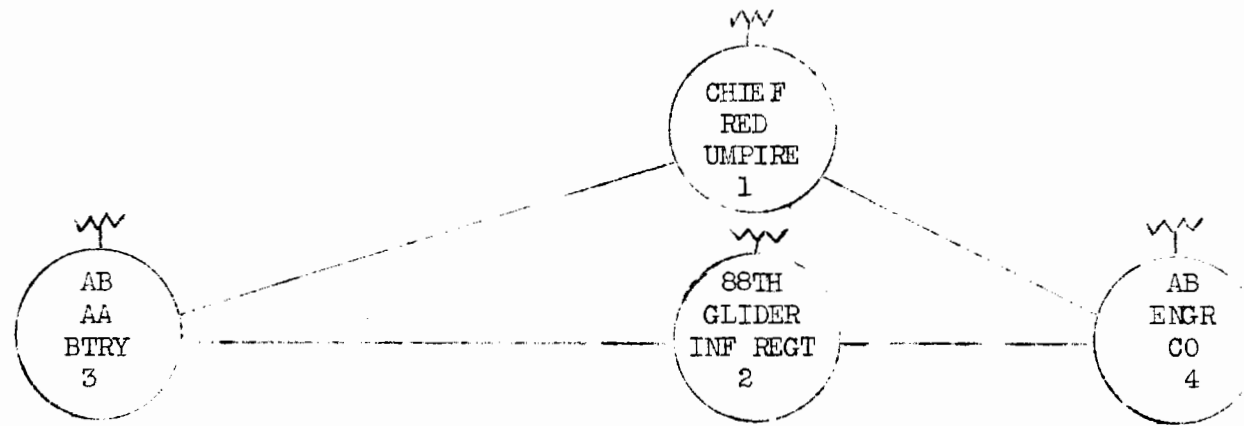
193D GLI INF REGT		
UNIT	CALL SIGNS	FREQ.
REGTL HQ	BLUE 8	A
1ST BN	BLUE 9	28.4
2D BN	BLUE 10	

194TH GLI INF REGT		
UNIT	CALL SIGNS	FREQ.
REGTL HQ	BLUE 11	A
1ST BN	BLUE 12	28.8
2ND BN	BLUE 13	

517TH PRCHT INF REGT		
UNIT	CALL SIGNS	FREQ.
REGTL HQ	BLUE 14	
1ST BN	BLUE 15	
2ND BN	BLUE 16	
3RD BN	BLUE 17	B
4TH BN	BLUE 18	30.4

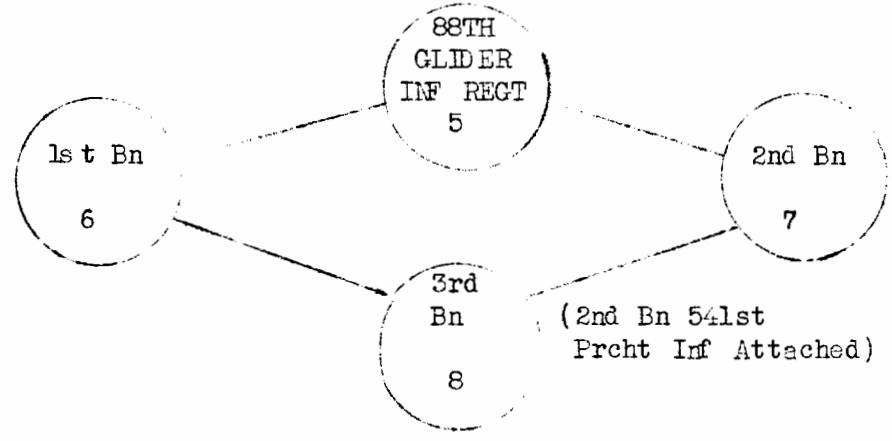
"B" FREQUENCY COMMON TO ALL SETS, WILL BE USED AS DIRECTED.

RED UMPIRE NETS



LEGEND

Wavy symbol	0	SCR	284
Wavy symbol	0	SCR	610

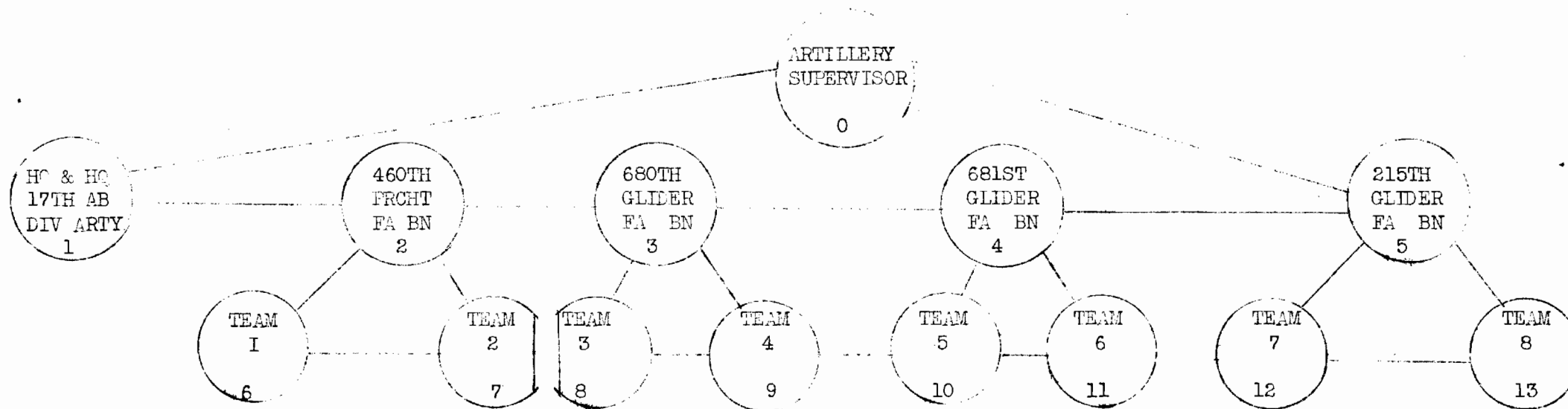


<u>CHIEF RED UMPIRE NET</u>			
<u>UNIT</u>	<u>CALL SIGN</u>	<u>FREQ</u>	
CH. RED UMPIRE	RED 1	A	B
GLI INF REGT	RED 2		
AB AA BTRY	RED 3	4700	3880
AB ENGR CO	RED 4		

<u>88TH GLIDER INF REGT NET</u>			
<u>UNIT</u>	<u>CALL SIGNS</u>	<u>FREQ</u>	
GLI INF REGT	RED 5	A	B
1ST BN	RED 6	30.8	27.6
2ND BN	RED 7		
3RD BN	RED 8		

"B" FREQUENCY COMMON TO ALL SETS. WILL BE USED AS DIRECTED

ARTILLERY SUPERVISOR NETS (SCR-610)



ARTY SUPERVISOR NET

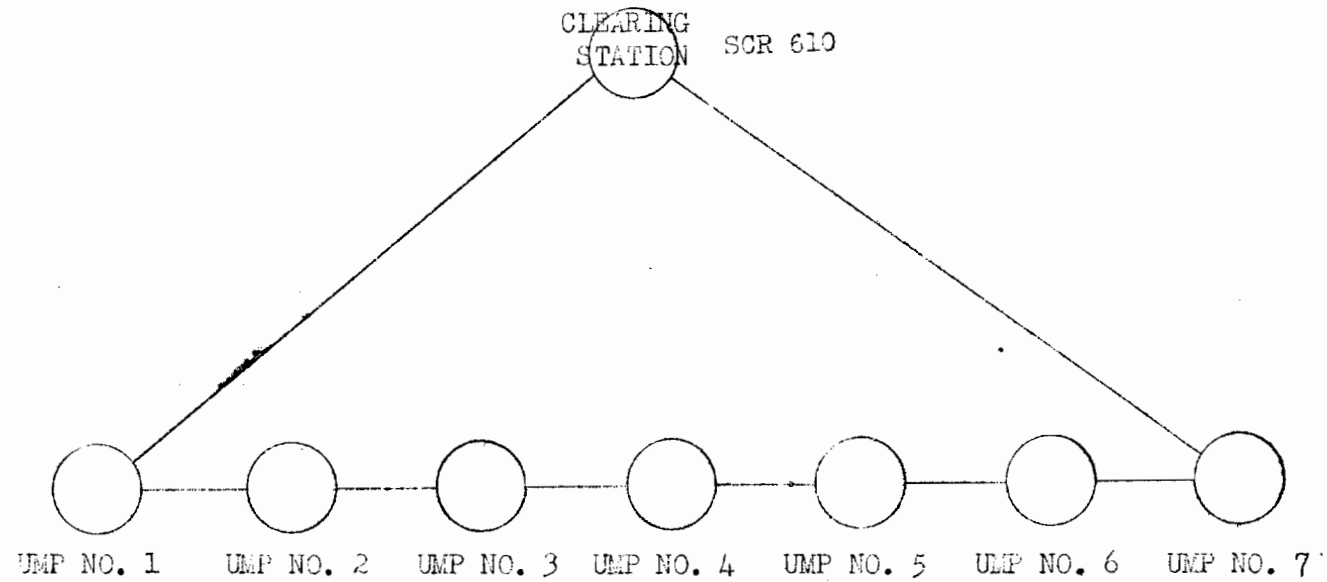
<u>UNIT</u>	<u>CALL SIGN</u>	<u>FREQ</u>
ARTILLERY SUPERVISOR	ARTY 0	
HC & HQ BTRY-17TH AB DIV ARTY	ARTY 1	A B
460TH PRCHT FA BN	ARTY 2	32.4 31.2
680TH GLI FA BN	ARTY 3	
681ST GLI FA BN	ARTY 4	
215TH GLI FA BN	ARTY 5	

ARTILLERY SUPERVISOR ARTY

<u>UNIT</u>	<u>CALL SIGN</u>	<u>FREQ</u>
ARTY 5 MARKING TEAM NO. 1	ARTY 6	A B
ARTY 6 MARKING TEAM NO. 2	ARTY 7	32.4 31.2
ARTY 7 MARKING TEAM NO. 3	ARTY 8	
ARTY 8 MARKING TEAM NO. 4	ARTY 9	
ARTY 9 MARKING TEAM NO. 5	ARTY 10	
ARTY 10 MARKING TEAM NO. 6	ARTY 11	
ARTY 11 MARKING TEAM NO. 7	ARTY 12	
ARTY 12 MARKING TEAM NO. 8	ARTY 13	

"B" FREQUENCY COMMON TO ALL SETS. WILL BE USED AS DIRECTED

MEDICAL UMPIRES NET



<u>UNIT</u>	<u>CALL SIGN</u>	<u>FREQ.</u>	
CLR. STA.	CLEAR	"A"	"B"
UMP. NO. 1	MED. 1	31.6	30.0
UMP. NO. 2	MED. 2		
UMP. NO. 3	MED. 3		
UMP. NO. 4	MED. 4		
UMP. NO. 5	MED. 5		
UMP. NO. 6	MED. 6		
UMP. NO. 7	MED. 7		

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

CUTTHROAT

20 December 1943.

STAFF MEMORANDUM)

NUMBER.....1) ADMINISTRATIVE PROCEDURE

1. The following procedure will govern the handling of all correspondence for this headquarters.

a. All incoming and outgoing mail will be received and dispatched by message center.

b. Staff sections will prepare correspondence for the signature of the Adjutant General.

c. Correspondence will be prepared on colored paper appropriate to its use as follows:

(1) Red Paper will be used for matters pertaining to Red Forces.

(2) Blue Paper will be used for matters pertaining to Blue Forces

(3) White Paper will be used for neutrals and information which is applicable to both Red and Blue Forces.

d. Correspondence will be prepared in compliance with AR 340-15 insofar as is practicable. All correspondence will be prepared with a headquarters file copy on yellow paper. The headquarters file copy will contain typist and dictator's initials. File copies should be initialed by the officer originating the correspondence before they are submitted for signature.

e. The following identifying symbols are assigned to Staff Sections as indicated. These symbols will be shown on all copies for the correspondence following subject numbers.

ABTCDR.....	Director
ABTCDF.....	Deputy Director
ABTCDA.....	Asst Directors
ABTCAS.....	Administrative Asst.
ABTCAL.....	A-1
ABTCGA.....	G-1
ABTCGB.....	G-2
ABTCAB.....	A-2
ABTCGC.....	G-3
ABTCAC.....	A-3
ABTCGD.....	G-4
ABTCAD.....	A-4
ABTCAG.....	Adjutant General
ABTCCO.....	Hq Commandant
ABTCOD.....	Ordnance
ABTCSE.....	Signal
ABTCOW.....	Chemical Warfare
ABTCFA.....	Field Artillery
ABTCSG.....	Surgeon
ABTCQM.....	Quartermaster
ABTCEN.....	Engineer

Staff Memorandum Number 1, (Cont'd)

ABTCPM.....Provost Marshal
ABTCVB.....Visitors' Bureau

f. All correspondence will be dated by the Staff Sections and routed to Message Center after signature. Message Center will process the communication and return file copies to AG Section.

2. All communications relating to troops in the maneuver will be classified "Maneuver Restricted" unless conditions indicate a necessity for classification of secret or confidential. Code Name "CUTTHROAT" will be shown in upper right hand corner.

3. Work orders to be performed by the Reproduction Center, Airborne Command, will be submitted to the Adjutant General for approval.

4. The Engineer Officer will be responsible for the storage of all maps. All requests for maps will be made to the G-2 -- A-2 Section for approval.

5. Officers reporting to Maneuver Headquarters for duty will sign Officers Register in the main hall; observers and guides at Visitors Bureau. All incoming umpire officers will report to the Chief Umpire. Other officers will report to the Adjutant General.

6. Medical service for visitors or officers and enlisted men on temporary duty will be available at the 541st Parachute Infantry dispensary, Building T-1445, north of Guest House No. 1. No change in medical service for personnel permanently stationed at Camp Mackall.

7. General and Special Staff Sections will maintain a current report of activities of their sections to be available to Maneuver Director on call, and on completion of maneuver will submit a complete report to the Maneuver Director. An outline of the activities of each section for the day will be submitted to G-1 by 1200 daily covering the previous day.

8. Security Measures.

a. Chiefs of Sections will insure that security measures are taken to prevent mishandling of classified materials. Attention is invited to AR 380-5.

b. The following measures will apply, in the handling of classified correspondence:

(1) The file clerk in the Adjutant General's record Section is responsible for the registering of classified documents. Classified correspondence to be dispatched will be referred to the Adjutant General for registration and dispatch.

(2) Staff Sections desiring classified correspondence on file in the Adjutant General's record Section will sign classified record sheets and will be properly charged with the security of the document.

(3) Incoming classified correspondence will be referred to The Adjutant General for registration and dispatch to the section to which it pertains.

Staff Memorandum Number 1, (Cont'd)

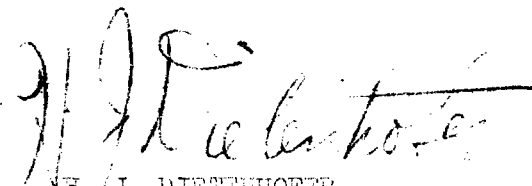
(4) All classified documents will be returned to the Adjutant General's record section prior to 1700 hours. These documents will be locked in a vault for safety over night. If documents cannot be returned by 1700 hours, they will be given to the Duty Officer on duty in the Adjutant General's Office who will place them in the vault.

(5) The senior non-commissioned officer in each section is charged with the responsibility of disposing of all waste paper in the Section prior to 1645 hours daily, and will report to the Sergeant Major that it has been accomplished.

By command of Brigadier General DONOVAN:

H. J. DIEBENHOFER,
Captain, Adjutant General's Department,
Adjutant General.

OFFICIALS



H. J. DIEBENHOFER,
Captain, Adjutant General's Department
Adjutant General.

DISTRIBUTION

"A" = "C"

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS CUTTHROAT
Camp Mackall, North Carolina

20 December 1943.

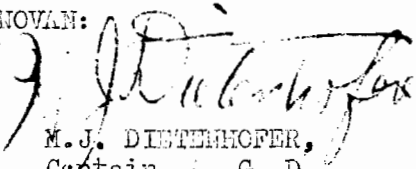
STAFF MEMORANDUM)

NUMBER.....2) : DUTY OFFICER, MANEUVER HEADQUARTERS

1. The duty officer will be detailed daily by the Adjutant General for duty at this headquarters during the hours 1700 to 0815.
2. The Staff Duty Officer will report to the Adjutant General at 1645 for any special instructions before assuming his duties as Staff Duty Officer.
3. The Saturday and Sunday Staff Duty Officer will report on and off duty as follows:
 - a. Saturdays: report on duty at 1700 Saturday and be relieved 1200 Sunday.
 - b. Sundays: report on duty at 1200 Sunday and be relieved at 0815 Monday.
4. The Duty Officer will remain in the area of the Maneuver Headquarters Building where he can be readily reached by the Charge of Quarters at all times during his tour of duty from 1700 until 2200, and from 0700 until 0815. He will notify the Charge of Quarters when he retires, and will sleep in his own quarters. He will keep the Charge of Quarters informed as to his whereabouts.
5. The Duty Officer will handle all business requiring immediate action. In cases of necessity, he will endeavor to contact the head of the section concerned and advise him of the need for action. In all cases where immediate action is called for, same will be taken.
6. When the Duty Officer has information that a visitor to this headquarters is expected to arrive during the night, he will ascertain what accommodations have been arranged and, if necessary, will make arrangements for essential accommodations. Visitors will be met by official transportation and the Duty Officer will personally ascertain that the driver of such transportation is acquainted with the specific accommodations which have been arranged for each visitor. This duty will not be delegated to the Charge of Quarters. In the event of arrival of transient officers on temporary duty at this headquarters, the Duty Officer will take necessary action to arrange for accommodations for such officer. He will instruct each visiting officer to sign the proper Officers' Register, as indicated in Paragraph 5, Staff Memorandum #1, 20 December 1943.
7. The Duty Officer will insure that the Charge of Quarters is familiar with his duties, including checking lights and doors at night.
8. The Duty Officer will inspect the kitchen, mess hall and one meal in the battalion mess hall for observers and visitors. Any irregularities will be reported to the Adjutant General.

Staff Memorandum No. 2, 20 December 1943, FETCAG, sub: "Duty Officer,
Maneuver Headquarters".

By Command of Brigadier General DONOVAN:


M. J. DIETERHOFER,
Captain, A. G. D.,
Adjutant General.

DISTRIBUTION

"A"

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS COUTHBROOK
Camp Mackall, North Carolina

20 December 1943.

STAFF MEMORANDUM

NUMBER.....3) VISITORS BUREAU - PUBLIC RELATIONS

1. The VISITORS BUREAU is delegated by G-2 A-2 with the entire responsibility for public relations.

a. This covers the reception, registration, inspection of credentials, billeting and transportation of official visitors, news-correspondents, photographers, radio-news commentators and guides.

b. Until the arrival of a special representative of the Bureau of Public Relations, the Visitors Bureau will monitor all material for dissemination to the public. Thereafter, the aforementioned representative of the Bureau of Public Relations will assume this responsibility.

c. Necessary passes and waivers against personal injury will be executed in case of civilians.

d. Personnel of the Visitors Bureau will familiarize themselves with the provisions of AR 380-5, FM 30-25, FM 30-26 and the FIELD HANDBOOK for Public Relations Officers of Army Air Forces and will be guided thereby.

e. The Visitors Bureau will be prepared for:

(1) Briefing of visitors with necessary maps for presentation of problems, situations, area guide maps, etc.

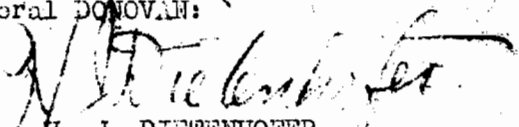
(2) Coordinating activities by the Maneuver Public Relations and Bureau of Public Relations.

(3) Creating material for release.

(4) Preparing a composite booklet of Combined Airborne-Troop Carrier Maneuver History.

f. Material prepared within the Visitors Bureau for further dissemination will be coordinated with and prepared for the approval of Chiefs of Bureau. The strict adherence to this rule is directed.

By Command of Brigadier General DONOVAN:


H. J. DIETSCHE,
Captain, U. S. G. D.,
Adjutant General.

DISTRIBUTION:

"A", "F", "G", "C" Special.

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS CUTHROAT
Camp Mackall, North Carolina

20 December 1943.

STAFF MEMORANDUM)
:
NUMBER.....4)

COMMUNICATIONS PROCEDURE

1. Purpose: In order to handle messages expeditiously and accurately, the following information and procedure is outlined for all concerned.

2. Facilities Available: There will be available for the maneuver period the following means of communications:

a. Teletype: Direct lines from Maxton to Mackall, Florence, Pope, Lumberton. Also a conference circuit with stations at Maxton, Mackall, Florence, Pope and Lumberton (A message originating at any one station reaches the other four stations simultaneously).

b. Telephone: Direct lines to Maxton Army Air Base switchboard, from which point all departure fields can be reached. In order to reach any party located other than at Camp Mackall, ask the local operator for MAXTON operator by code name (to be announced later) and then ask the MAXTON operator for number desired. There will be a telephone directory issued giving the code name and numbers of all units and individuals.

c. Messenger Service: Local messenger service as now supplied will continue. In addition, it is contemplated that there will be scheduled messenger service by a liaison type aircraft to all departure fields for the purpose of delivering messages such as documents, overlays, photo-mosics, or other messages incapable of being transmitted over wire facilities. When provided, all concerned will be advised.

d. Radio: There will not be any radio communication between this headquarters and departure fields. There will be radio communication between the forward echelon of the 17th Airborne Division and Task Force Headquarters after the landing of the Forward elements of the Division.

3. Employment of Facilities: Whenever possible, the teletypewriter should be used in preference to the telephone for the following reasons:

a. It is much faster means of transacting business.

b. It is the most secretive means of communication and cannot be readily tapped.

c. It provides a written record for the originator of the message.

d. By requiring the writing of the message, it insures that all pertinent points are included in the message.

e. It keeps the telephone lines open for those urgent messages which require personal contact.

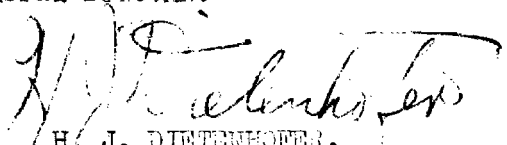
Staff Memorandum No. 4 (Cont'd)

4. Whenever the telephone is used, notes should be made prior to placing the call so that conversation will be as short and concise as is consistent with accuracy and so the lines can be released for use by others.

5. Whenever a message is transmitted by means other than telephone, the message book M-210 should be utilized and instructions therein followed. Each message should answer the questions: What, When and Where, and is not complete unless it does so. Message should then be delivered in duplicate to the Message Center located in Maneuver Headquarters where the Message Center Chief will transmit the message by the fastest means available.

6. The cooperation of all concerned is requested so that a continuous and smooth flow of communications will be assured.

By Command of Brigadier General DEMOVIE:



H. J. DIETSCH,
Captain, A. G. D.,
Adjutant General.

DISTRIBUTION:

"A", "E", "F", "G", "C" Special.

CUTTTHROAT

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

29 December 1943

STAFF MEMORANDUM)
NUMBER.....5)

BLACKOUT INSTRUCTIONS

1. The following is a schedule of aircraft warning signals which will be employed for blackout during the maneuver:

5-6 January 1944

Yellow	2030
Red	2100
Blue	0150
White	0200

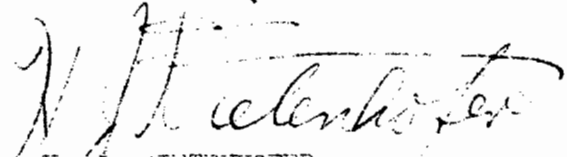
6-7 January 1944

Yellow	2030
Red	2100
Blue	0150
White	0200

2. All persons connected with Maneuver Headquarters, all Umpires and Observers will take proper action for blackout on the time schedules indicated above, whether or not air raid warning signals are heard. Vehicles connected with the maneuver may proceed with blackout lights only except those specifically exempted by Maneuver Director, during the period of the red warning.

3. All maneuver vehicles operating with blackout lights during the period of blackout "red" will not exceed a speed of 15 mile per hour while within the limits of Camp Mackall.

By Command of Brigadier General DOHOVANI:


H. J. DIETSCH
Captain, A. G. D.,
Adjutant General.

DISTRIBUTION, "A" "E" "F" "G"

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CUTTICROAT

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEAD QUARTERS Camp Mackall, North Carolina

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	Surgeon	2	" " "
	QM Officer	2	" " "
	Engineer Officer	2	" " "
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- 2 -

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COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

REVISED DIRECTORY

STAFF OFFICERS	STAFF SECTION & ROOM NUMBER	TEL NO.	QTRS ADDRESS & PHONE NO.
ABRAMS, C. CAPT. INF	ASST G-3 Room #201	769	Club Chalfonte Pinehurst, N. C.
AGNEW, S. C. MAJ. AC	A-2 Room #201	768	ABC BOQ 72
ALEXANDER, R. MAJ. CE	ENGINEER OFFICER Room #3	773	Southern Pines, NC 6922
ARENSON, M. LT. AC (WAG)	SEC'Y TO DIRECTOR	776	Nurses Ctrs 400
AUSTIN, J. M. 2ND LT. INF	ASST TO SIG OFFICER UMPIRE GP Room #8	766	Bldg. 1628 77
BAILEY, A. R. CAPT. AC	A-1 Room #103	775	ABC BOQ 72
BAKER, J. C. MAJ AC	ASST A-4 Room #105	763	Chalfonte Hotel Pinehurst NC 92281
BASSETT, J. A. LT COL GSC	G-4 Room #105	763	Pinehurst NC 3172
BENNETT, J. C. JR. LT COL AC	CHIEF AIR UMPIRE Room #8	769	ABC BOQ 72
BETTINGER, M. E. LT COL INF	CHIEF RED UMPIRE Room #8	766	Bldg. 2227 778
BRUCER, M. H. CAPT. MC	SURGEON (GND) Room #104	761	ABC BOQ 72
CALDWELL, C. C. LT COL GSC	G-1 Room #103	775	ABC BOQ 72
CHRISTIANSEN, R. T. MAJ CE	VISITORS BUREAU (GND) Building T-1820	747	Morganton Ridge Southern Pines, NC
CORNETT, J. G. LT COL INF	ASST CHIEF UMPIRE Room #8	766	ABC BOQ 72
CROCKETT, J. C. LT COL. INF	ASST DIRECTOR (GND)	770	ABC BOQ 72
DA COSTA, C. A. MAJ. AC	VISITORS BUREAU (AIR) Building T-1820	747	ABC BOQ 72
DE GAVRE, C. B. LT COL INF	G-3 Room #201	769	Pinehurst NC 3821
DICK, R. D. LT COL AC	LIASON OFFICER A-3 Section Room #201	764	ABC BOQ 72
DIETENHOFER, H. J. CAPT AGD	ADJUTANT GENERAL Room #1	762	Pinehurst, NC 4223
DONOVAN, L. BRIG GEN USA	DIRECTOR Room #6	776	General's Ctrs 39
EAGAN, J. D. MAJ. AC	A-4 Room #105	763	Chalfonte Hotel Pinehurst 92281
EVANS, F. W. BRIG GEN USA	DEPUTY DIRECTOR Room #6	776	General's Ctrs 39
FLYNN, E. J. CAPT. FA	PUBLIC RELATIONS OFFICER (GND) Bldg T-1820	777	Pinehurst NC 2611
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GRAVES, R. D. LT COL. INF	CHIEF UMPIRE Room #8	766	551st Precht Infantry Cp Mackall, N. C.
HALEY, T. F. MAJ. SC	SIGNAL OFFICER (GND) Room #2	765	ABC BOQ 72
HARDEN, H. B. JR MAJ FA	FIELD ARTILLERY OFFICER Room #4	765	ABC BOQ 72
HARDWICK, J. W. 2ND LT. AC	ASST TO A-4 Room #105	763	Chalfonte Hotel Pinehurst 92281
HARRIS, J. E. MAJ. QMC	QUARTERMASTER OFFICER (AIR) Room #102	761	ABC BOQ 72
HORNEY, W. E. MAJ INF	SIGNAL OFFICER UMPIRE GP, Room #8	766	ABC BOQ 72
HUDSON, J. D. CAPT. ORD	ORD OFFICER (GND) Room #102	761	Pinehurst, N. C. 4023
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CUTTHROAT

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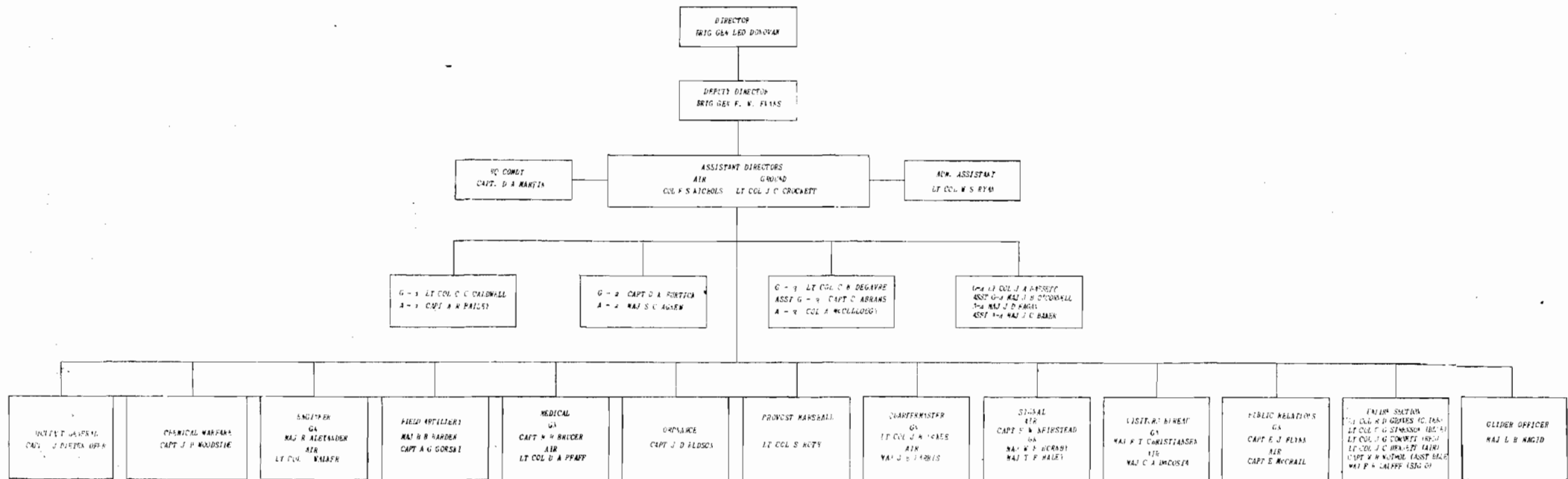
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McCULLOUGH, A. L. COL GSC	A-3 Room #201	764	ABC BOQ 72
McGRAIL, E. M. CAPT. AC	PUBLIC RELATIONS OFFICER (AIR) Bldg T-1820	750	ABC BOQ 72
McKEE, JOSEPH M. JR LT COL QMC	QUARTERMASTER OFFICER (GND) Room #102	761	Pinehurst, NCNC 4224
MAGID, L. B. JR MAJ. AC	GLIDER OFFICER (G-3 Sect) Room #201	769	ABC BOQ 72
MARTIN, D. A. CAPT. INF	HEADQUARTERS COMD'T Room #105	774	ABC BOQ 72
MITCHELL, L. JR. 1ST LT AC	CHIEF OF GLIDER UMPIRES Room #8	767	38th TC Sqn, AAF Cp Mackall, NC
NICHOLS, E. S. COL. GSC	ASST DIRECTOR (AIR)	770	ABC BOQ 72
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REID, R. J. MAJ. ORD	AIR ORDNANCE OFFICER Room #105	763	ABC BOQ 72
ROTH, S. LT COL INF	PROVOST MARSHALL Room #5	774	Bldg T-2513 82
RYAN, W. S. LT COL INF	ADMINISTRATIVE ASST	760	Pinehurst NC 3785
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Umpires.....766 & 767
 Maneuver Information.....746 & 748
 Observers Transportation.....749
 Message Center.....772
 Sgt/Major.....762
 Charge of Qtrs.....762
 Observers, Guides & Umpires Qtrs.....778

Direct Line to Pope Field..... (UNION)
 Direct Line to Maxton..... (REBEL)

COMBINED AIRBORNE - TROOP CARRIER MANEUVER COMMAND & STAFF

CUTTHROAT



APPENDIX B

Observers Bureau

OBSERVERS BUREAU

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Visitors Bureau
Camp Mackall, North Carolina

10 January 1944

SUBJECT: Summary of Activities of Visitors Bureau

TO: Director, Combined Airborne-Troop Carrier Maneuver
Headquarters, Camp Mackall, North Carolina

The Visitors Bureau for the Combined Airborne-Troop Carrier Command maneuvers January 5 to 9, inclusive, was opened 29 December in Building T-1820, across from Maneuver Headquarters, with Major C. A. DaCosta and Major R. T. Christianson in charge.

Office equipment and supplies were re-installed after having been stored under guard in Building T-2219 - Maneuver Officers Orderly Room - since the closing of the bureau at the end of the last combined maneuvers 11 December. New files were set up to take care of correspondence concerning the current maneuvers.

Company "C", 550th Airborne Infantry, again provided quarters, messing facilities and transportation for observer, guide and umpire officers with the exception of transportation for umpires, who had their own motor pool.

In addition to being responsible for furnishing housing, administration, mess and transportation for observers, official visitors and umpires, the Visitors Bureau activities also included briefing of visitors with necessary maps for presentation of problems, situations, area guide maps, etc., and creating material for news release through the maneuver Public Relations Office, which was a part of the Visitors Bureau.

Guides were thoroughly briefed on various phases of the maneuvers at meetings in which officers instrumental in setting up the battle exercises explained the activities. Speakers included Colonel E. S. Nichols, assistant maneuver director (air); Lieutenant Colonel J. C. Crockett, assistant director (ground); Lieutenant Colonel Dudley A. Pfaff, surgeon (air); Captain Marshall H. Erucer, surgeon (ground); Major L. E. Magid, glider officer; Major H. E. Harden, field artillery officer; and Major T. F. Haley and Captain E. W. Keirstead, signal officers.

A detailed situation map of the maneuvers was kept by officer guides in the lounge at the Visitors Bureau.

More than 100 official observers were present for the maneuvers. Included in the group were a number of high-ranking United Nations Army officers. The majority of observers were provided quarters in barracks at Camp Mackall maintained by the 550th Airborne Infantry, while others were provided accommodations at hotels in Pinehurst and Southern Pines.

The Bureau worked in coordination with Lieutenant Colonel Samuel Roth, Maneuver Provost Marshal, in providing military police for policing of the convoy routes over which observers were taken during the opening phases of the maneuvers. Captain J. T. Morton, Observer Motor Pool Officer, made a dry run with all his enlisted personnel 30 December, going over the routes used during the maneuvers, for the purpose of familiarization.

Situation maps were prepared with the parachute and glider drop zones marked off and the routes used by the convoy in moving from one point to another also indicated.

Guides gathered at the Visitors Bureau the afternoon of 3 January and moved in convoy on a reconnaissance of glider and parachute drop zones. That night the guides again took off on a convoy for a dry run over the same routes that were used on the opening nights of the maneuvers, returning approximately at midnight, when coffee and doughnuts were served at the Officers' Mess.

Twenty-four of the official observers, including one British officer in the Royal Air Force, checked out at the bureau 7 January, but most of the observers remained to watch the continued ground operations of the maneuvers. Major DaCosta left during the morning for Stout Field, Indianapolis, Indiana, leaving Major Christianson in sole charge of the bureau.

A memorandum was made up and distributed to the guides, advising them that they were required to turn in a report, including observations and criticisms on the maneuvers, to the Director, Combined Airborne-Troop Carrier Maneuver Headquarters. This memorandum was similar to the one made up during the December maneuvers.

Newspaper coverage of the maneuvers was left up to the Maneuver Public Relations Office which prepared daily releases and sent them to the Associated Press, United Press and International News Service. These stories were widely published in newspapers throughout the country. News stories with a feature angle also were prepared for the daily and weekly newspapers of North Carolina. All stories were given official approval before being released.

Officers in charge of the Public Relations Office were Captain E. J. Flynn, Public Relations Officer of the Airborne Command, and Captain E. M. McGrail, Public Relations Officer of the Laurinburg-Maxton Army Air Base, Maxton, North Carolina, who represented the Troop Carrier Command.

The clerical staff for the Visitors Bureau was made up of personnel from Stout Field, Pope Field, Camp Mackall and Fort Benning, Georgia.

/s/ ROY T CHRISTIANSON
/t/ ROY T CHRISTIANSON
Major, CE
Visitors Bureau

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Office of Public Relations
Camp Mackall, North Carolina

10 January 1944

SUBJECT: Report of Maneuver Public Relations Office

TO : Director of Combined Airborne-Troop Carrier Command
Maneuvers, January 5-9, 1944.

1. The Public Relations Office for the second Combined Airborne-Troop Carrier Command maneuvers, January 5-9, 1944, was set up in the Visitors Bureau across the street from Maneuver Headquarters.

2. Officers in charge of the office were Captain Edward M. McGrail, Public Relations Officer of the Laurinburg-Maxton Army Air Base, Maxton, N. C., who represented the Troop Carrier Command, and Captain Edward J. Flynn, Public Relations Officer of the Airborne Command, Camp Mackall, N. C.

3. Enlisted personnel assigned to the office included Sgt. Lee S. Heiman, Jr., 35728899, and Sgt. Charles E. Darneal, 35692996, of 392nd Base Hq. and Air Base Sq., Laurinburg-Maxton Army Air Base; Sgt. Robert D. Robinson, 32321156, Hq. and Hq. Co., Camp Mackall; Cpl. Charles R. Hornick, 35728868, 362nd Base Hq. and Air Base Sq., Stout Field, Indianapolis, Ind.; Cpl. Hylton O. Webb, 38293388, 92nd Base Hq. and Air Base Sq., Pope Field, Fort Bragg, N. C.; Pvt. Thomas R. Green, 35625355, Parachute School, Fort Benning, Ga., and Pvt Robert York, 35705494, Hq. Sq., Stout Field.

4. This office was responsible for newspaper coverage of the maneuvers. News releases on the maneuver background and various phases of the exercise were prepared and sent to the Associated Press, United Press and International News Service. These stories were published by all daily newspapers in North Carolina and many other papers throughout the country.

5. Additional news stories were sent to the daily and weekly papers in North Carolina, to the papers published at Troop Carrier Command bases and to The Army Times, The Army and Navy Journal and the Army and Navy Register.

6. Pictures of the various maneuver activities were taken by photographers assigned to the Public Relations Office, both for release to newspapers and for official records.

7. All news stories and photographs were given official approval before being released for publication.

8. Daily newspapers of North Carolina were received by the office and a complete record of all stories concerning the maneuvers carried by them was kept. Copies of all maneuver stories written also were kept.

9. Captain Luther Davis and Captain Raymond S. Creeknor of the staff of Air Force magazine visited the maneuvers to prepare an article on the Troop Carrier Command, illustrated by sketches, which is to appear in the magazine.

10. Recommendations:

a. Most difficult portion of the work of the Public Relations Office in the conduct of the January maneuvers has been to secure complete and accurate information quickly. Possibly because of their primary interest in the work of their sections,

staff officers have not forwarded information to the Public Relations Office. It is recommended that provision be made for the inclusion of the Public Relations Office in the distribution of all orders.

b. It is recommended that a definite policy with regard to the release of information be established prior to the inauguration of maneuvers and that such policy be adhered to from the beginning to the final activities in connection with such maneuvers.

/s/ EDWARD M. MCCRAIL
/t/ EDWARD M. MCCRAIL
Captain, Air Corps
Public Relations Officer

/s/ EDWARD J. FLYNN
/t/ EDWARD J. FLYNN
Captain, FA
Public Relations Officer

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

4 January 1944

CORRECTED
MANEUVER SCHEDULE FOR OBSERVERS

1. Following is a schedule for observers visiting the Airborne-Troop Carrier Maneuver in the Camp Mackall Area, January 5 - 9, 1944. Only the combined operations in which both Airborne and Troop Carrier units participate together have been listed below, under Events.

2. The Visitor's Bureau will make arrangements for routes, observation posts, transportation, guides, traffic police and other necessary details.

Wednesday - 5 January

<u>Time (EWT)</u>	<u>Event</u>	<u>Place</u>
1400	Observers arrive	Camp Mackall, N. C.
1500	Presentation of maneuver situation	Theater #4, Camp Mackall
1600	Leave Camp Mackall (Maneuver Headquarters) by automobile	For Laurinburg-Maxton Army Air Base
1715	Arrive Laurinburg-Maxton	
1720	Observe loaded gliders	Laurinburg-Maxton Air Base
1745	Dinner	Officers' Club, Laurinburg-Maxton Air Base
1900	Observe gliders take-off	Laurinburg-Maxton Air Base
2000	Leave Laurinburg-Maxton Air Base by automobile	For Derby glider landing area
2230	Observe glider landing	Derby Area (Field #5)

Thursday - 6 January

0650	Leave Carolina Hotel	Pinchurst, North Carolina
0715	Leave BOB #2226	Camp Mackall, N. C.
0800	Arrive at Glider Field #12	Glider Field #12
0815	Observe glider landing	Glider Field #12
0915	Leave Glider Field #12	For PDZ #1
0945	Arrive PDZ #1	
0959	Smoke screen strafing mission	PDZ #1
1000	Observe parachute drop	PDZ #1
1200	Lunch	Observers' Mess & Carolina Hotel
1300	Leave for Knollwood Airfield	
1400	Airborne-Troop Carrier Training Activities	Knollwood Airfield
1630	Return to Quarters	
1800	Dinner	Observers' Mess

Maneuver Schedule for Observers, 4 Jan 44, (Contd)

<u>Time (EWT)</u>	<u>Event</u>	<u>Place</u>
2000	Observe air landings	Mackall Airfield

The principle events subsequent to the completion of the air landing operation will be:

- a. The ground maneuvers of the 17th Airborne Division.
- b. The resupply and evacuation missions of the 60th Wing, Troop Carrier Command.

For the Commanding General:

H. J. DIETENHOFER
Captain, A. G. D.
Adjutant General

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COMBINED AIRBORNE TROOP CARRIER MANEUVER HEADQUARTERS CUTHRAT
Camp Mackall, North Carolina

31 December 1943.

MEMORANDUM: Officer Guides Schedules

Sunday, 2 January 1944

1000 Orientation - Lt Col Crockett
Lt Col Bassett
Major Harden

1315 Convoy reconnaissance GDZ and PDZ

Monday, 3 January 1944

0830 Communications - Major Haley

1315 Visit Knollwood, Pinhurst and
Southern Pines

1830 Convoy to Maxton, GDZ 4 & 5, and PDZ

Tuesday, 4 January 1944

0830 Medical - Colonel Pfaff
Captain Brucer

1315 Gliders - Major Magidd
Major O'Connell

1. Meals are served:

Breakfast	0700
Dinner	1200
Supper	1800

The cost of meals will be fifty cents (.50¢). Payable to the Mess Sergeant at each meal.

2. Mail will be distributed from the Orderly Room (Bldg No. 2219). A list of officers having mail will be posted on the officers' Bulletin Board (near mess hall) daily.

3. There is a telephone in the Orderly Room for local calls only.


4. Private cars may be parked in rear of building number 2230.

5. Notices will be placed on the officers' bulletin board and on the banks of officers receiving calls.

6. The Post Exchange will cash checks for officers in amounts not exceeding Fifty Dollars (\$50.00). WD, AGC Form No. 65-1 will be sufficient identification.

7. Officers will check out in the orderly Room before departing.

By Command of Brigadier General DONOVAN:


A. J. DEWITT-HOOPER
Captain, A. G. D.,
Adjutant General.

DISTRIBUTION

"A" "F" "G".



The STORY
of
The AIRBORNE COMMAND
and
The I TROOP CARRIER
COMMAND

Prepared for
The Combined
Airborne-Troop Carrier Command
Maneuvers
December 1943



*THE AIRBORNE COMMAND
OF THE ARMY GROUND FORCES*

One of the major surprises of the current world conflict has been provided by employment of parachute and air-landed units and has led to such development of these units as to constitute a new weapon of increasing importance.

The Airborne Command, with headquarters at Camp Mackall, North Carolina, is charged under the Commanding General, Army Ground Forces, with sharpening the edges of this weapon and with developing a technique which will make its employment most effective.

Widespread geographically, the Airborne Command consists of the Headquarters, airborne divisions, parachute brigades and regiments not assigned to airborne divisions, and numerous parachute and glider field artillery, anti-aircraft, and engineer units at Camp Mackall, N.C., Fort Meade, S.D., Alliance, Nebr., and Laurinburg-Maxton Army Air Base, N.C., and The Parachute School at Fort Benning, Ga.

The Airborne Command is responsible for the training of all airborne divisions. The infantry units, within a division, with field artillery units attached, are trained as a combat team and coordinate their activities with the I Troop Carrier Command, which will transport them in their missions.

Additional functions include the development of airborne equipment and materiel, and the development of supply by air, utilizing parachutes, gliders and aircraft.

Construction of Camp Mackall, in North Carolina's sand hills, was started November 8, 1942, and the camp was formally opened May 1, 1943. The camp was named in honor of Private John Mackall, one of the first American paratroopers to die in action.

Thousands of graduates of the parachute and infantry schools are getting their post-graduate training at Camp Mackall, before shipping to zones of combat. Here the veterans of America's first airborne invasions of North Africa and the South Pacific are passing on the lessons they learned to the lean and hard young men who will drop from the skies over Europe and Japan to carry the war back where it started.

ACTIVATED IN MARCH 1942 -

The Airborne Command was activated in March 1942, bringing together under one headquarters the responsibility for the training of all parachute and airborne combat units in the Army Ground Forces.

From one parachute platoon and one battalion of airlanding infantry, which marked the beginning of airborne activity in the United States Army, there has been a constant and rapid development in the number, diversification, and the efficiency of airborne troops. The Airborne Command is the center of an airborne activity which spreads from coast to coast, the influence of which will be felt on an increasing scale in the theaters of combat around the world.

Closely allied to the Airborne Command is the I Troop Carrier Command, under the Commanding General, Army Air Forces. The I Troop Carrier Command furnishes the transport airplanes

and gliders for all airborne troops. Glider stations are operated throughout the country by the I Troop Carrier Command and set aside at each of these are facilities and training aids for the use of airborne units sent there by the Airborne Command for that phase of their training.

Airborne units are organized and equipped for special operations. Parachutists are all volunteers, and the glider-troopers are especially selected. Landings of airborne troops usually are made in enemy territory, therefore the term "shock troops" is not inappropriate, but the idea is far from correct that these troops are in any sense either "commandos" or "suicide units".

The employment of airborne units presupposes a strong air superiority, a continuing support by fighter planes and employment in mass and in conjunction with other major elements of the ground forces. It is an accepted principle that an airborne operation would be far too expensive to permit failure and the operation accordingly is favored with more than the usual number of factors required to insure success.

THEY GET SPECIALIZED TRAINING -

These men have gone through four weeks of strenuous training at The Parachute School to become qualified parachutists. The soldiers know the technique of stepping out into space while traveling at 100 miles or more per hour, have felt the opening shock of the parachute, and know how to get into action quickly the moment after they hit the ground. They already know what it is to face fear with courage. That the parachutists lose no time in getting into

action after they have landed was proved in the invasion of Sicily in which German parachutists were landed in the same area that our parachutists were dropped with victory for our men.

Soldiers in the air-landing units have studied all types of transport aircraft and gliders which may be provided for transport; have learned the placing, balancing and lashing of all types of combat loads; have flown in an airplane with a quarter-ton truck and a 37-mm gun as part of the load; and they know how air transportation can best be employed to move troops and equipment.

While the troops are undergoing their training, members of the staff are constantly busy testing new types of equipment, planning for methods of resupply, and preparing for the day when the airborne units will go into combat.

It is true that the distinguishing characteristic of all airborne troops is that the soldier is carried into a combat zone by aircraft or glider, but his flight through the skies and his descent, whether by parachute, glider or airplanes, is only a means of transportation to the place on the ground from which he will launch his attack. Having reach the ground, he fights on foot. Ground combat training is regarded as being of paramount importance for airborne troops.

The airborne soldier must be trained and developed in physical fitness, self-reliance, aggressiveness, and skill. He must be proficient in arms, used to long, forced marches, and conditioned for the day when he will land within or beyond the enemy-held position. If his objective is several miles away, he must get to that objective on foot or by means of captured

transportation because the airborne soldier has few trucks with him. He must carry his equipment or pull it by hand and make the most of a situation which finds him and his comrades without vehicles and large reserves normally available to an infantry unit. What he lacks in weight of arms, he makes up for by the surprise effect of his swift, bold attack.

All tactical operations of airborne troops are characterized by speed, initiative, and boldness; speed both in the air and on the ground.

Hitler has been given the credit by a lot of sincere, but misguided, people for inventing the use of parachutes in delivering men and supplies by air. Hitler captured, stunned and surprised Holland by parachute invasion, coupled with the work of fifth columnists already on the ground. Airborne troops also were utilized by Germany in capturing the island of Crete from the British. But Russia has for years made the military use of the parachutes a fine art.

The United States, also, in its own quiet way, has done its own developing of parachutes. The United States Forestry Service for years has been dropping supplies to its fire-fighters by parachute. Supplies also have been dropped successfully from the air to flood-refugees along the Mississippi River and other rivers.

THEIR PARACHUTES ARE THE BEST -

Parachutes are uniformly 24 feet in diameter for cargo and 28 feet for personnel, with a second emergency 'chute fastened to the man's chest -- just in case. American parachutists carry two 'chutes, whereas the Germans carry only one.

They are made of the best silk and nylon, and the women of America wince inwardly whenever they read about parachutists in operation. In the beginning, every possible material for parachutes was tested by American fabric experts, and silk or nylon was finally selected. Rayon is of dubious value, because of its weight and because it is treacherous when made wet, such as by a sudden rainstorm or puddle. Parachutes for personnel often are made of camouflaged cloth, invisible in ordinary terrain after the 'chutist reaches the ground.

The Airborne Command has gone to great length to find safe ways of dropping supplies without benefit of parachute. Even now Army stoves, hospital supplies, food, and other materials, can be dropped without the use of the supporting parachute. Every manner of padding packages has been tested. One serviceable package is a padded blanket roll, so to speak; merely roll up the goods and rope it tight. Sometimes the goods can travel safely inside a stout rope-net.

TRAINING IS CONDUCTED CONTINUOUSLY -

The four-week training course is divided into four stages, and the following subjects are covered: physical training, parachute packing, jump training, and qualification jumping.

Physical training is given constantly. It includes calisthenics, running, rope climbing, tumbling, boxing, wrestling, hand-to-hand combat and body coordination. As the course progresses, the physical training is intensified. Exercises on the "trainasium", a maze of steel bars and ladders, thirty feet high and forty feet long, over which the student must climb

and walk, further develop his strength and give him a sense of balance.

The parachutist is required to pack and inspect his own parachute. The instructors are never confronted with lack of interest during this phase of training. Confidence in the parachute is developed, for nobody will pack it more carefully than the man who is going to use it.

MEDICAL OFFICERS -

In addition to the combat troops, medical officers are being trained as parachutists with the purpose of attaching them to parachute battalions and regiments in combat. They are assisted by enlisted men, trained as medical aids, also parachutists. A number of medical officers already have been trained and attached to parachute units, and some have seen action.

Once the medical officer is accepted for parachute training, he is transferred to The Parachute School at Fort Benning, where he lives with other students and pursues a four-week course of training with them.

The newly-qualified medical officer generally is assigned to a regiment as one of its surgeons. He then assists in the training of the enlisted men of the regimental medical detachment, participates in maneuvers, and eventually goes into combat action with his regiment. The most interesting part of the parachute medical officer's work consists of participating in jumps and maneuvers with his regiment.

Following his arrival on the ground, the surgeon assembles his men, who secure any extra equipment they may have dropped by parachute. He then makes a rapid survey of the field for

any parachutists who may have been injured in landing, and then quickly leads his men off, with the other parachutists, toward their objective. Usually to avoid enemy ground fire, a jump in combat maneuvers is made some distance from the final objective, such as an airfield or bridgehead, and therefore, fast work is required to assemble and approach the objective, still maintaining an element of surprise.

IN COMBAT -

Nothing is normal in battle; but normal technique for the paratroopers is to bail out and seize a favorable open area, then reinforce it with troops and jeeps and small guns landed by glider when the field is under control. These big gliders--the I Troop Carrier Command's CG-4A's--which open up in front to accommodate a quarter-ton jeep and other equipment such as artillery are towed to the scene of operations by the ITCC's C-47's, the fuselage of which is reinforced to stand the stress of towing a glider aloft from a standing start or by flying pick-up, although the latter method has not been adopted as standard practice. Methods of glider-towing are now in process of refinement.

Having attained an objective, a parachute force usually organizes it for defense until allied supporting troops arrive, and at this time, an aid station may be established and casualties collected and treated.

It is in these operations that the Airborne Command and the I Troop Carrier Command again combine to comprise a hard-hitting combat team, that has proved its worth in many areas of combat.

Despite the extra hazards of their parti-

cular profession, the American paratroopers on their baptismal operation in North Africa sustained casualties at a lower rate than any other branch. The dash across Europe ended in Algeria with nine out of 500 killed - none of them in jumping. Four died in an airplane under attack by enemy aircraft; four died in a truck; and one died accidentally.

Besides their initial mission of invasion, the paratroopers - who are primarily infantry qualified as parachutists - fulfilled numerous reconnaissance, scouting and demolition tasks.

The aerial invasion of North Africa was a success in that it confused the enemy into believing that a tremendous force had landed. Axis intelligence reported thousands of troops had been flown in, and the enemy failed to move when they might have succeeded. Subsequently, the paratroopers successfully reinforced and supplied Allied troops scattered thinly along the Tunisian front, and gained invaluable experience that will make future attacks from the air even more effective.

AIRBORNE ENGINEERS WORK WITH SPEED -

Because of the work of the Airborne Engineers, landing fields have been restored to service in a matter of hours instead of days, speeding up our air action against enemy forces.

The Parachute School at Fort Benning, in addition to its basic jump training, also offers a post graduate course in three different, specialized subjects for paratroopers. These subjects are demolition, communications, and rigging.

At the demolition school, the paratrooper learns how to jump with the parachute demolition

kit and how to handle explosives on the ground for various missions of destruction.

In the communications school, the paratrooper is trained to do a specialized job in his parachute unit as a signal communications expert with radio, telephone or other means.

At the riggers school, the men are trained as specialist maintenance personnel to inspect and to repair parachute equipment and to build new types of rigging, parachute containers, and harness for special use.

USE OF AIRBORNE TROOPS -

These graduates of The Parachute School, with their trousers tucked in their highly-polished boots and their rugged physical appearance, can well command the attention of the American public.

Their training has been hard, grueling, grinding, and rigorous. Their limbs have been broken, their hands cut up, noses smashed, and many a knee has felt the impact of the ground as the parachutist descends from the sky, but all these things have been taken in stride, and the hard work of training put under the belt of these graduate troopers, and many of them are now in active combat overseas.

The unit which participated in the jump at New Guinea only a short time ago was taking its training in the sand hills of South Georgia. They surprised the pants off the Nips with the help of the Air Corps, with its smoke screen, and the friendly help of the Aussies. The New Guinea campaign was a successful one according to reports from headquarters in the South Pacific. They surprised the enemy so completely

that Tojo, in his flowing robes, is not yet sufficiently recovered to figure out what happened.

The current news reports indicate that the combined Aussie and American paratroopers continue to do amazingly well in their theater of activity.

The training which the American paratroopers obtain in this country and the jungle training in other areas off the continental United States proved to be of a type that made itself felt immediately on landing at Lae. The same training and the full effect of the same was felt by the Germans at Avelino in Italy, after the battle of Salerno, when a unit of paratroopers was dropped on a German armored tank car park.

Every phase of an airborne unit in operation was employed in this drop because of the nature of the terrain and because of the mission which had to be accomplished.

Communication training was paramount because the troopers had to maintain constant communication with the rear echelon in order to bring up material and supplies.

Physical training also was important because of the marches the men had to make back to their original units. Demolition work, marksmanship, and all the work of the infantry soldier was brought to the front in this attack.

The story is related of a paratrooper of German descent of one of our units, who hearing the orders given to the Germans at a point not far from where he was bivouaced, suddenly decided to spring a surprise on the enemy. He had been trained in much the same manner as had those Teutons opposing him, but he had the added value

of his training as an American paratrooper. He ordered the Germans, in a loud voice, to move to the right or to the left, backwards or forwards, where he spotted them with his M1 rifle and picked them off as they moved to his commands. A typical example of American paratroopers' ingenuity.

New Guinea, Sicily, and Italy were just highschool for the airborne troops of the Airborne Command. There they learned how to perfect the training and technique which they absorbed while in the United States. They learned the tactics, put them into the game, and played it well, as can be shown from the reports of the observers from all these theaters.

The paratroopers and glider troopers have a tradition to live up to, for they are essentially infantry, and now that they are known as Airborne troops, they are making the traditions which other units will have to follow in the fighting which is to come.

Where the airborne troops will be used or in what numbers, is still a matter for those who are concerned with the great strategy of this war. However, when the order comes from above to effect vertical envelopment of the enemy, troops of the Airborne Command will be found willing and ready to encompass the assigned missions.

**THE I TROOP CARRIER COMMAND
OF THE ARMY AIR FORCES**

It is the youngest command in the Army Air Forces - but it is bigger now than the whole U. S. Army Air Forces of three years ago. Its units are engaged in the active theaters of operation all around the globe. It is piling up legends for the services it has performed. It has been praised both by the ground and the air forces of all the allied armies with which our American pilots are working.

The I Troop Carrier Command was created by General Henry H. Arnold, Chief of the Air Forces, April 30, 1942. Its headquarters were established at Stout Field, Indianapolis, a base formerly used by the Indiana National Guard. Now it is commanded by Brigadier General Frederick W. Evans, who is a veteran in point of service with the Army Air Forces.

You've known all along that the Parachute Infantry and the Airborne Infantry soldiers have the toughest schedules of training among the ground forces. The Marine Corps lacks no word of praise from any American. Its heroic actions in all wars are known to every schoolboy in this broad land. And it is the job of the Troop Carrier Command to get these units into their fighting zones.

WHAT THE TCC DOES -

With the paratroopers it is a question of placing them in the proper position for the drop from the airline type planes converted to war uses. The Troop Carrier Command knows these planes as C-47's and C-53's. With the Airborne Infantry it is a question of cutting loose the gliders, the Army's CG-4A's, at the right spot so that the airborne troops can go down into the thick of the fighting with all the equipment needed for front line service. With the Marine Corps the same tactical problems are handled by the TCC.

And along with these air landings for the various elements of the services there are many other important assignments given the TCC. The fighting men on the ground often depend upon the TCC to fly the re-supply missions. What the man on the ground needs to maintain his position is brought to him by the pilots of the Troop Carrier Command. The wounded are brought out and prisoners are taken to the camps provided. Salvage jobs are performed. It is axiomatic that the planes of the TCC are never empty. They carry pay loads going to and coming from the forward positions.

Whatever the task, whatever the weather, and regardless of the type of field either for landing or departure, Troop Carrier pilots are accustomed to getting the men and the supplies needed to the right spot at the right time.

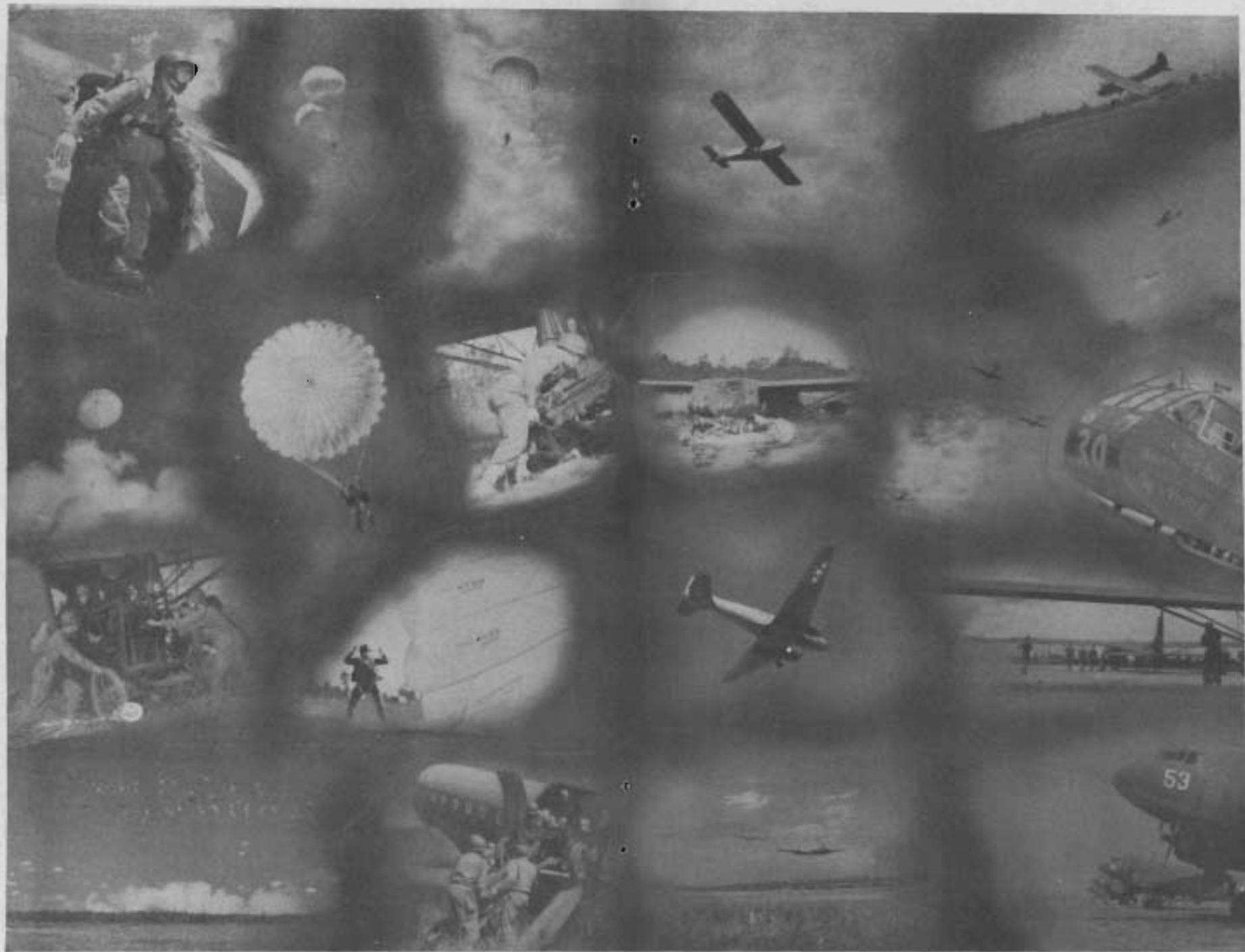
IT'S A BATTLE ZONE OUTFIT -

Even seasoned war correspondents have been known to confuse the Troop Carrier Command with other branches of the Army Air Forces. And that is a touchy spot with Troop Carrier pilots and commanding officers. Possibly the reason for the confusion lies in the fact that there is another transport branch in the Army Air Forces. This is the Air Transport Command. And sometimes the Troop Carrier Command is confused with the Air Service Command. These are fine services too, the TCC will agree. But there's a distinction that the TCC would like you to keep in mind. That is as to the area in which each of these commands operates.

Of the three, it is only the Troop Carrier Command which operates exclusively within the theaters of operation. Its sister commands take the supplies and the equipment out of continental United States and up to the supply lines overseas. From that point on it is the Troop Carrier Command which operates right at and over the front.

At Guadalcanal, when the Marines were in a sore spot, planes of the TCC maintained their supply, making landings over enemy lines. There is one case where a horse was flown from southern Australia to Darwin. And in the Mediterranean theater, the Troop Carrier Command, along with its many other duties, flew 20,000 rolls of toilet paper from Gibraltar to Tunisia.

Ground troops have applied the term "biscuit bombers" to the TCC planes. It is an affectionate term as applied by the soldier on foot who knows these workhorses of the air can be depended upon to bring in the needed materials. And again you may hear the TCC pilots



described as "flying truck drivers". No matter what they are called they know just how to handle their planes and to put things where they are wanted.

They are the handiest chore boys any theater commander ever had.

THEIR SUPERB SERVICE TO THE WOUNDED -

While the primary responsibility of the TCC is to haul the world's toughest fighters to the front; and then to supply them with all they need to stay there, those are not the only functions of the Troop Carrier Command. It performs many other services for the Army Air Forces and for the ground forces with which it forms a combat team.

When the history of this World War begins to take something approaching its final shape, the story of the care of its wounded will mark a new chapter in war medical and surgical services. Already the achievements in saving the lives of our casualties are phenomenal. This is due largely to the fact that there are no long waits for the wounded soldier. He gets the latest approved technique in shock treatment immediately and then is flown directly to a hospital where he gets all that medical science can provide in the way of treatment.

This is where the workhorse planes of the TCC, flown by some of the Army Air Forces' most highly skilled pilots, become flying hospitals. Already there are tens of thousands of recovering casualties who owe their present chances for complete recovery to the fact that the TCC got them out and put them under skilled medical care without delay.

The Troop Carrier Command handles these casualties at the front with two new types of medical service. One is the Air Evacuation Service. The other is the air-landed Field Hospital. Both services have earned for the TCC the reputation of having the only battle assignments given to America's womanhood.

When the TCC flies men to the front, doctors, nurses, and medical technicians go along. With one doctor to each five planes, and each plane carrying one nurse and one technician, the casualties are flown out under the best medical care available. These doctors, nurses, and technicians compose the Air Evacuation Service.

The planes have been designed so that when men and equipment going to the front, have been unloaded, the plane can be changed into a flying hospital unit in a matter of eight minutes. The crews are so highly trained they can do this in the dark. Again and yet again these Air Evacuation crews bring out successive details of wounded men.

The Field Hospital Service has a different type of unit. These units are flown to the front by the Troop Carrier Command. Doctors, nurses, and enlisted personnel are flown in the C-47's and C-53's near the field where the casualties are occurring.

With this personnel there goes all the equipment necessary to establish a field hospital right in the zone of action where it is most needed. Such units have been known to move, with all their patients and equipment, time after time when the action became too hot to permit proper care of those entrusted to them. Nurses in these Field Hospitals know all about

soldiering. They go through the infiltration courses where they practice under live machine gun fire. They know how to dig and occupy their own foxholes. They wear uniforms that are strictly utilitarian in appearance and service. And they can establish camp with all the skill and sangfroid of the most mature Gyrene you ever saw.

WHEN A NEW RUNWAY IS NEEDED -

There is another important function performed by the TCC. When the ground forces move forward they depend upon the air force to move forward with them. This means repairing damaged air fields and constructing new ones. Experience has shown the desirability of having specially trained engineers ready to do this work. And so we have the Airborne Aviation Engineer Battalions. Not only have they special training for their work; they also have their equipment built, tailor-made, so that it can be carried in TCC planes and gliders.

When one of these airborne engineer outfits gets an assignment to lay down a runway, it loads bulldozers, tractors, landing strips, and all the other paraphernalia needed for such an operation into the TCC aircraft. And in a matter of hours - *not days* - the engineers have been known to construct runways that the Fortresses and fighters can use for takeoffs and landings. So - check up another chore for the Troop Carrier Command.

HOW THEY ARE TRAINED -

Some of the most spectacular achievements in flying training are being conducted at Camp

Mackall and at Laurinburg-Maxton Army Air Base, both in North Carolina. At these two fields the Troop Carrier Command is fast developing the Army glider as a real tactical weapon for carrying war to the Axis-dictated nations.

These fields, though, form only a part of the training areas allotted to the TCC within continental United States. At Austin, Texas, to Bergstrom Army Air Field come pilots for service with the TCC. Mostly, they are young pilots trained on single-engined jobs. At Bergstrom they go through an intensive course designed to acquaint them with the know-how for operating the Air Forces' C-47's and C-53's.

At Bowman Field, Louisville, Kentucky, the glider pilots get their combat training. These lads take a course of ground training that is tougher than most of those given the Rangers. For they know that once their gliders are landed at the front, it is a matter of sheer guts and fighting that will get them out. They don't anticipate being able to have their gliders towed out of most of the spots on which they will be landed. It is a one-way trip for the gliders in most cases.

Before coming to Bowman they have had their initial training as glider pilots at Lubbock, Texas. And after they have finished their Bowman Field training they go to Camp Mackall where they get advanced training in handling gliders in the air and on the ground.

At Bowman Field, the Air Evacuation Units also get their training in how to convert a plane into a flying ambulance. It is at Bowman

that they learn how to install eighteen liters in as little time as eight minutes, either in daylight or in the dark.

THE REASONS THE TCC WAS CREATED -

The uses for which the Troop Carrier Command was created are described in official War Department publications. In these we are told that:

Troop Carrier units may be used as follows:

a. The primary mission of troop carrier units is to provide air transportation for airborne forces going into combat; and to re-supply such forces until they are withdrawn or can be supplied by other means.

b. The secondary mission of troop carrier units within the combat theater is:

1. Emergency supply and evacuation.
2. Ferrying of troops and supplies.
3. Routine transportation of personnel, supplies, and mail.

c. Troop Carrier units must be diverted from secondary missions, by the highest headquarters in a theater, in ample time to allow complete preparation to accomplish primary missions.

Gliders are not new to Americans who have paid any attention to flying during the past two decades. Mostly as a hobby, Americans have flown the small, one-man gliders over wide areas. From the point of takeoff, these

gliders were carried on shifting air currents and the contest was always to see which sportsmen could take the greatest advantage of the currents to soar to new heights and to cover the greatest air mileage before landing.

But it was not until the Nazis used the gliders to carry fighters in the occupation of Holland - and later - in smashing British resistance on Crete, that the war worth of these silent weapons of the air was demonstrated.

Now the Troop Carrier Command is putting the CG-4A's through paces that never were dreamed of, even a short time ago. When their training skill was demonstrated at maneuvers conducted at Laurinburg-Maxton in August of this year, they brought from General Arnold the heartfelt expression, "Well, I'll be damned".

He had just witnessed a night operation in which gliders were cut loose and dropped into a specified area, all in proper formation. In this maneuver each and every one of the gliders hit the designated spot exactly on the nose. And the last glider to land carried an eight-piece "band" which stepped out and jauntily played some well known and popular airs to wring from the Chief of the Army Air Forces the expression quoted above.

Those maneuvers involved single tows of gliders. It is only recently that the double tow has become standard practice in the training of the Troop Carrier groups now being readied for battle stations.

As a result of the development of double towing, we may see the day when paratroopers

will be carried not alone in the C-47's. They may be dropped from the tow-plane and from the two gliders trailing along at the end of the nylon tow-lines that represent so many hundreds of stockings our American girls are not wearing these days.

Or the tow-plane with its two gliders may carry paratroopers while airborne infantrymen ride in the gliders, with their accompanying jeeps, artillery, and machine guns.

One unit of the Troop Carrier Command recently, on a routine test, flew a double tow from Sedalia, in Missouri, to the Laurinburg-Maxton Army Air Base. Only one stop was made - at Bowman Field - on this flight of more than one thousand miles. This epochal trip was made under rather nasty weather conditions.

HAS PROVED ITS WORTH IN BATTLE -

How has the TCC proved up in Battle? How has it lived up to its official insignia - a falcon carrying a soldier by the seat of his pants, with rifle and fixed bayonet? It has done very well, indeed.

We have Lt. General George C. Kenny, Allied Air Commander in the Southwest Pacific, speaking of the New Guinea operations. He says they were more remarkable than the Nazi conquest of Crete by air.

"Our main reliance was upon approximately 25 standard cargo planes, chiefly C-47's, capable of carrying 2 1/2-tons of supplies or troops over the range. They ran on schedule. Many of the pilots never had seen the North

side of the mountains where they were first called upon to undertake this job. They certainly delivered the goods."

Legend has it that when the shoulder patch of the Fifth Air Force was being explained to General Kenny, the designer said: "Those three stripes behind the projected bomb represent the fighters, bombers, and Troop Carrier Command." It was then that General Kenny showed his appreciation of the Troop Carrier Command service by saying: "You have that wrong. The converging stripes represent the Troop Carrier Command, the fighters, and the bombers."

The landing of American forces at Oran is now more than a year behind us, and much battle history has been made by American fighters in the intervening months. But that landing at Oran was spearheaded by the spectacular 1,500 mile flight of the Troop Carrier Command out of British airbases and across land and water to Northwest Africa.

When Americans landed at Salerno it was touch and go for an anxious forty-eight hours. It was here that the paratroopers put down in the right spot by the Troop Carrier Command were an important element in holding and enlarging the beachhead.

When General MacArthur's forces were sent into Markham Valley in the approach attack on Salamaua and Lae during the past September, it was the steady going Troop Carrier Command which supplied the units for the carrier job. The huge Markham Valley parachute attack was the first such assault attempted in the Pacific, and it was one of the most successful attacks

ever launched.

The skill with which the Troop Carrier Command operated in dropping the paratroopers at the designated positions had much to do with later developments of this campaign resulting in the wiping out of Salamaua and Lae, two bases where the Nips had been established for nearly two years.

In the Sicilian invasion the Troop Carrier Command landed parachutists one day before the main attacks took place. They went through flak and a howling storm to land the paratroopers and the airborne in gliders. And the men thus placed in position by the Troop Carrier Command, wrought such havoc that they speeded the advance of allied troops by more than a week, according to Major General Joseph M. Swing, of the A B Command.

THEIR AIRMANSHIP IS SUPERB -

It's the pay load that counts in the Troop Carrier Command operations and so the crews of these C-47's and C-53's have no defensive armor. Neither do they carry so much as a slingshot to ward off other planes which may attack them. They depend solely upon their skill as superb airmen to evade enemy air forces and to get their men and supplies to the wanted spots. There is scarcely a knowing American who hasn't seen the airline counterpart of these TCC planes, but he hasn't seen all the skill with which the TCC pilot gets down close to earth in contour flying while he is aiding in driving home a successful attack.

With contour flying developed to the point where the pilot takes advantage of every human

skill to skim along at treetop and housetop level, the attacker is placed at a disadvantage. The fighter coming down for the C-47 has to overcome the great possibility that his attack will land him on the ground - so close to it do the TCC planes fly.

They have one trick, that of speeding up when attacked, then suddenly cutting the motor, lowering the wheels, and dropping all flaps, that has produced some amazing results. The Nazi, coming down at great speed and keeping the transport in his sights, is unprepared for the sudden slow-down, and thus is far away from his target, while the TCC plane goes merrily on its way.

Staff Sergeant James L. Thomas, crew chief of a TCC C-47, who was in on the Sicilian invasion, has made the following observations regarding that action:

"At dusk, the crews went to their planes, and the paratroopers were already there, getting into their equipment. No joking now - we knew the real thing was near.

"Circling after the takeoff, it was a terrific sight to see the hundreds of transports taking off from field after field in perfect order. We had the aid of a bright half moon. We began passing over hundreds and more hundreds of boats, landing barges, and warships, silently waiting for daybreak. As we approached the target there was no sound but the steady roar of the engines. Suddenly we were inland - everyone moved to battle stations. Paratroopers hooked their static lines, ready to jump.

"The green light came on - the paratroopers began going out in an endless stream of white domes as the plane picked up a little speed and the enemy began throwing everything he had at us. I dropped the supply 'chutes. We dove close to the ground and hugged it until we were over the sea. To our right, as we raced home, a city was aflame."

Then there is the story of how supplies were dropped over the New Guinea mountains to Allied troops who were pocketed in a narrow canyon some 1,000 feet long. The TCC pilots plummeted into the narrow defile, dumped the supplies at housetop level, and then pulled out safely. Not a man or a plane was lost in the mission and the most remarkable feature of this incident is that the pilots accomplished this difficult feat not once, but five times.

THE CRAFT THEY FLY -

Main tools of the Troop Carrier Command are the DC-3 type planes and the CG-4A gliders. There are two versions of this plane, the C-47 and the C-53. This type of plane was chosen in the first place for its proved efficiency and economy in airline operation. Indeed many of the officers called to active duty for service with the Troop Carrier Command had gained their flying and administrative experience in the service of the airlines of the United States.

In converting these planes to war use there are some changes that are readily discernible. The plush seats and linings came out. The C-47 has a double door and reinforced floor to take on the heavy mechanical equipment of the airborne such as jeeps, bulldozers, and

whatever else is needed for the job at hand. The C-53 has a single door, plywood floor, and under ordinary conditions is equipped to carry only two dozen paratroopers, each one with approximately 90 pounds of equipment.

The CG-4A is a fifteen place glider. Also it can carry jeeps or howitzers. When the jeeps or howitzers go in there is a corresponding reduction in the number of men carried. These blunt-nosed gliders carry most of the instruments of a powered-plane save for the engines (and experiments have been conducted in mounting engines on the gliders to supply auxiliary takeoff and cruising power).

The nose of the glider swings up and out on landing so that equipment can be rolled on to the field in seconds. Sixty of these gliders, timed for takeoff at 30-second intervals, behind their tow planes, can carry a whole battalion of airborne infantry with its artillery and can be put into the air from one runway in approximately fifteen minutes.

THE TCC'S ADVANTAGES IN WAR -

The characteristics that are estimated officially to make the Troop Carrier Command favorable for action in the war zones are listed as follows:

- a. They have the capability of transporting personnel and equipment of airborne forces to any desired area within the operating range of the aircraft.
- b. They can operate by day or by night.
- c. Usually they are afforded the opport-

unity of preparing and rehearsing for accomplishment of a specific mission.

d. They are equipped with the best available aircraft for transporting airborne units.

e. They are equipped with the gliders capable of landing in unprepared restricted areas.

f. They are equipped with special navigation aids for locating objectives in enemy territory.

Training now being undergone by Troop Carrier units is designed to perfect the techniques and procedures by which the principle of vertical envelopment by air will come more and more into use. When this principle is developed to its fullest use in the theaters of operation then the Troop Carrier Command will be known as one of the vital weapons for securing victory through the use of air power.

APPENDIX C

General Staff Sections

GEN. STAFF SECTIONS

COMBINED AIRBORNE-TROOP CARRIER MANUEVER HEADQUARTERS
Camp Mackall, North Carolina

10 January 1944

SUBJECT: Joint A-2, G-2 Report

TO: Commanding General, Combined Airborne-Troop Carrier Maneuver Headquarters, Camp Mackall, North Carolina

1. The joint A-2, G-2 Section was taken over from the first maneuver A-2 and G-2 on 15 December, 1943 by Major Stanton C. Agnew, Air Corps, ITCC and 17 December 1943 by Major (then Captain) Oswald K. Furtick, Inf. 1st Airborne Brigade. Enlisted personnel were Corporal Kenneth Kane of Airborne Command and Pfc Mary Tengredo, FAC of Troop Carrier. Later Sgt. Joseph J. Webber and Cpl. Ferraro M. Buffa both of 1st Airborne Brigade joined the section.

2. A resurvey of the map situation was instituted and the following maps were made available to the 17th Airborne Division and the 60th Troop Carrier Wing:

- a. Strategic map, scale 1/500,000, G of E, Winston-Salem Sheet.
- b. Photo map 1/62,500 area; 1100 to 1175 - 1305 to 1395
- c. Photo map 1/20,000 area; 1105 to 1166 - 1322 to 1362
- d. Photo map 1/15,000 area; 1131 to 1155 - 1327 to 1365

The 1/15,000 Photo map was prepared under direction of Captain Lloyd E. Elder from Sedalia Army Air Base who was assigned to 60th Wing prior to the maneuver for this purpose. Due to bad weather this photo mission was not flown until 19 December 1943. The mosaic and Litho copies were then prepared in Washington and returned to this headquarters on 9 January 1944. Because of the lateness of the delivery and the fact that all overlays were already distributed based on the 1/62,500 and 1/20,000 photo-maps the 1/15,000 were not used extensively.

e. Blowups 1/7500 of GLZ's were available in small quantity and were used at Maneuver Headquarters.

f. Verticals and obliques of BZ's and GLZ's were taken by Captain Elder and were available to both Airborne and Troop Carrier. Other flying and tactical aids such as pin point stereopairs, night maps, photo strips 1/15,000 of approach areas, pilot flight strip maps and terrain models were provided by 60th TC Wing and supervised by this section which maintained close cooperation during planning phases.

3. Intelligence Annex Number 1, FO No. 1 was prepared and two Intelligence Appendices were issued at later dates containing additional tactical information of enemy and enemy territory. Arrangements were made for long range weather forecasts and for daily reports from Washington and Charlotte weather stations. This information was furnished to both 17th AB Division and 60th TC Wing.

4. Instructions were prepared for the Visitors and Observers Bureau, outlining its duties and responsibilities. Censorship of news was delegated to that Bureau, news stories being cleared by WDPR Washington by wire.

5. The Counter Intelligence Detachment of the ITCC, one officer and five enlisted men, reported and were attached to the 60th TC Wing for use by the Groups. Their principal duty was the checking of security of participating units at departure airports.

6. During the maneuvers Intelligence Situation Maps were maintained and kept up to date. All available sources of information

Joint A-2, G-2 Report Contd.

were utilized; 60th TC Wing, 17th AE Division, Air Reconnaissance units of TAI, and umpires Situation Map. Tactical flow of information of enemy dispositions were maintained downward to 17th Division and 60th TC Wing.

7. Conclusions and Recommendations.

a. The flow of tactical information to Task Force Headquarters from 60th Wing was excellent. Intelligence periodic reports were rendered on time by 60th TC Wing but none were received from the 17th Division. One personal report was made by G-2 of the 17th Division.

b. CIC reports indicated that security was lax on departure airports by units of 60th TC Wing. It was demonstrated that sabotage was possible on a number of ships before take-off.

c. A spot inspection conducted on elements of the 438th Group while at Mackall indicated that proper clearing of personal papers had not been carried out by IO's. Nearly all officers and crew members checked carried personal papers and letters which should have been collected before the departure from home airport.

d. No OSS detachment was available for this maneuver. It is recommended that both CIC and OSS detachments be made available early in the phase of future maneuvers of this type.

AGIEW
A-2

FURTICK
G-2

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

10 January 1944.

SUBJECT: G-3 Report on Combined AB-TC Maneuver during period
6-9 January 1944.

TO: Commanding General, Airborne-Troop Carrier Maneuver
Headquarters, Camp Mackall, North Carolina.

I. Preparation.

a. Field Order No. 1, this headquarters, was issued to participating units on 18 December 1943 (F.O. #1, Combined AB-TC Maneuver Hq).

b. Plans made by the 17th Division, the 60th Wing, and the 1st Tactical Air Division to execute F.O. #1, this headquarters, were approved by this headquarters. The actual field orders were not submitted to this headquarters prior to publication.

1. Dates of publication of orders by subordinate headquarters were as follows:

(a) 17th Div. F.O. #1 - 28 December 1943

(b) 60th TC Wing F.O. #2 - 25 December 1943

(c) 1st TAD Annex #2 to F.O. #1, this headquarters - 23 December 1943.

c. Plans for a CPX to include this headquarters, 60th Wing, Umpires, and 17th Airborne Division were initiated on the 23rd of December. The 17th Division participated using only communication elements in battalion and higher units. Other units participated as planned. The CPX was held on the 30th after two additional conferences on the 27th and 29th of December. The 60th Wing flew one plane to represent each serial. A second CPX was held on the 3rd of January.

d. Adequate maps and photos were furnished (See G-2 report).

e. Arrangements were made for blackouts and road blocks by state police on the nights of 5-6 January and 6-7 January 1944 (See G-4 report).

II. Execution.

a. The 17th Division completed movement of units to the departure bases by 4 January 1944.

b. All phases of the air movement are covered in Inclosure #2 and #3 in F.O. #1, 17th Division and F.O. #2, 60th TC Wing and in the Chart Analysis of Movement Table 17th Airborne Division attached as Incl #1. The 17th Division was successfully transported to the combat area except for the last two serials not flown because of bad weather. These serials involved only about 440 men of the Division.

c. Summary of ground phase.

1. First Phase.

(a) The 1st Battalion C.T. of the 517th Prcht. Inf. landed on PDZ #3 at 2240 6 January and assembled at 2350. Co. "C" landed at 2245 on PDZ #2.

- (b) The 2nd Battalion C.T. landed at 2230 on PDZ #1 and was assembled at 2430. The battalion moved on to Aberdeen and met with Red resistance southeast of Aberdeen. The battalion enveloped the Red left east flank and engaged two companies of Reds along Hwy #1 between Aberdeen and Southern Pines. The battalion, under cover of darkness, withdrew to a position southeast of Aberdeen to attack northwest at daylight.
- (c) The 3rd Battalion C.T. landed at 2400 6 Jan on PDZ #3.
- (d) The 1st and 3rd Battalions attacked the Mackall Airfield and gained control of same at 0300, 7 Jan 44. The 1st Battalion then proceeded toward Aberdeen to set up an outpost line 3 miles SE of Aberdeen along the line Ashmont, Ashley Heights, covering the east and southeast flank. The 3rd Battalion set up a defense of the airfield to await the arrival of the 193rd Glider Infantry. The 3rd Battalion moved to Pine Bluff at approximately 1900 7 Jan, upon being relieved of defense of Camp Mackall by elements of the 193rd Infantry, air landed.
- (e) The 1st Battalion C.T. of the 194th Glider Infantry landed at 2240 6 Jan at GLZ #1 to #11 inclusive. The battalion moved to the east and met Red resistance about 3 miles west of Aberdeen. A break-through was made by the 1st Battalion, but the Reds employed tanks at 1300 7 Jan and the battalion was pushed back to its former line, generally north and south 3 miles west of Aberdeen.
- (f) The 2nd Battalion C.T. of the 194th Glider Infantry landed at 0810 in GLZ #12 to #15 inclusive. It moved east on Aberdeen and encountered Red resistance 2-1/2 miles west of Aberdeen and southwest of Aberdeen at Pine Bluff. The entire 194th Glider Inf. was then stopped with battalions abreast west of Aberdeen.
- (g) Batteries B & C, 155th Anti-Aircraft Battalion landed at 2400 6 Jan on GLZ #1 to #10 inclusive. Battery B joined the 517th Prcht. Inf. at Camp Mackall and Battery C joined the 194th Glider Inf. C.T. west of Aberdeen.
- (h) Batteries D, E, & F, 155th Anti-aircraft landed at 1330 7 Jan at Mackall.

2. Second Phase.

(a) Reds

- (1) The Reds withdrew from Aberdeen to the North along Route #15 during darkness on night of 7-8 January. Red withdrawal was caused by a change in mission given by the director. The new mission was the defense of Pinehurst, keeping it open for retreat of Reds through that area.

Later on the 8th the Reds were moved to west of Pinehurst to defend it from the west. One battalion was on the south of the position by 1500, 8 Jan and one more battalion by 1800. The Red defensive position extended from Joe's Creek north of Pinehurst to Vina Vista south of Pinehurst on Hwy #15 and #501.

- (b) Blue. The mission of the Blue Force was likewise changed to require an attack on Pinehurst from the west to secure that town and prevent Red withdrawal through it (see sketch).
- (1) The 1st Bn C.T. of the 517th Prcht. Inf. moved from its outpost line southwest of Aberdeen into Aberdeen on morning of 8 Jan.
 - (2) The 2nd Bn C.T. of the 517th Prcht. Inf. advanced into Aberdeen and moved to the west and North about 1 mile-out of Aberdeen on morning of 8 Jan.
 - (3) The 3rd Bn C.T. of the 517th Prcht. Inf. moved to an area about 1 mile east of Pine Bluff on morning of 8 Jan.
 - (4) The 517th Prcht. Inf. moved as a regiment to north preparatory to attack on Red position scheduled for 0900, 9 Jan (see sketch).
 - (5) The 194th remained in assembly area 2-1/2 miles west of Aberdeen until the early afternoon of 8 Jan. It then moved into position as shown on sketch- app. 2-1/2 miles south of Pinehurst to attack at 0900, 9 Jan on south (left) flank of Red position.
 - (6) The 193rd C.T. remained as a security element at Mackall Field until relieved at 1330 8 Jan by the 2nd Division (air ferried). The 193rd C.T. then moved in Division reserve to an area approximately 5 miles west of Pinehurst.
 - (7) The Blue Division attacked at 0900 9 Jan 44, with the 194th Glider Inf. in contact. The 517th Prcht. Inf. had not made contact by 1030 9 Jan and the 193rd Glider Inf. C.T. was about 2 miles west of Pinehurst in Division reserve - moving to east closer to contact (see sketch).
 - (8) The maneuver was terminated at 1040 9 Jan with all Blue Forces in motion against the Red position, although the weight of the Blue attack had not yet been thrown against the Reds. For position of all forces at close of maneuver see sketch.

III. Discussion.

The Division was moved very satisfactorily by air, although some of the serials were strung out materially which resulted in a slow and uncertain assembly of units on the ground.

The ground action up until the change of mission calling for the attack on Pinehurst was slow. Although the entire Red Force was fixed in the vicinity of Aberdeen and the Blue Force had battalions on three sides of the Reds, the Blue action was not aggressive to the point of definitely establishing the location of Red units nor the extent of Red positions. It is probable that Blue units in contact had definite information on their respective fronts, but such information was apparently not made available to the Division Commander. Part of the above was undoubtedly caused by some of the communication equipment and personnel failing to arrive in the combat area. In the 517th Frcht Inf one plane carrying key communication personnel and several radios failed to reach the combat area.

In an airborne operation it is particularly necessary that all landings be made close to objectives for two reasons: (1) The advantage of air mobility lends surprise to the operation, but unless the element of surprise is carried into the actual attack on an objective, the advantage is seriously diminished. (2) There is an inherent lack of ground mobility, strength and fire power in Airborne units. If movement to the objective is slow and the march long, it is probable that airborne units may find the objective occupied by a force having greater mobility and fire power, and thus not be able to dislodge the opposition.

The latter was the case in the recent maneuver. The Red Force was able to occupy Aberdeen before Blues could move from their landing area. Time was required then to move sufficient Blue Troops to the vicinity of Aberdeen in order to make a coordinated attack and drive out Red Forces.

IV. Conclusions:

It is concluded that:

a. Landing areas must be as close to the objective area as is consistent with the situation.

b. Dropping parachute troops from planes towing gliders is considered a poor method for the delivery of such troops in that arrival and assembly of the unit is necessarily prolonged and piecemeal.

c. Double tow is economical of air transport. Serials are too elongated because of their inability to fly any type formation other than a column. Loading plans are complicated and the landing plan is equally as complex. It is essential that plans be kept as simple as possible.

d. In using double tow and dropping parachutists from the tug plane a standard method is needed.

V. Recommendations.

a. That the following planning procedure be followed in subsequent maneuvers.

1. Outline by the Task Force Commander to the major unit commanders, both Airborne and Troop Carrier, the mission and the means available for the accomplishment.

G-3 Report (Cont'd)

2. Drafting of joint plan by major unit commanders.
3. Approval of the joint plan by the Task Force Commander.
4. Execution by major unit commanders.

b. That experiments be conducted by an appointed unit and a Troop Carrier group to work out the most efficient method of using gliders in double tow.

c. I concur in the conclusions and recommendations contained in the A-3 report herewith.

C. B. DeGAVRE
Lt. Colonel, Infantry
G-3

Incl: 1.

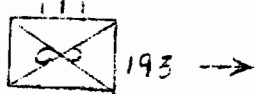
ANALYSIS
OF
MOVEMENT TABLE--17TH AB DIVISION

UNIT	D-1				D												D+1							
	SERIAL No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
TOTAL SERIAL	50	661	140	1259	190	251	844	547	304	205	153	283	409	273	429	287	110	201	149	293				
AGGREGATE	711	851	2110	2900	3151	3995	4542	4846	5051	5204	5487	5896	6169	6598	6885	6995	7196	7345	7638					
PERCENTAGE	10%	12%	29.8%	41%	44.4%	56.3%	64%	68.3%	71.2%	73.4%	77.4%	83.2%	87%	93%	97%	98.5%	101.4%	103.5%	107.8%					
ARRIVAL TIME	1819	1819	1809	2230	2245	2230	2330	0030	0800	1000	1200	1330	1600	1800	2000	2230	0430	0700	0900	1100	1730	1930		
LANDING AREA				PDZ 1	PDZ 2	PDZ 3 GDZ 1-11	PDZ 3 GDZ 1-10	PDZ 3	GDZ 12-15	PDZ 1	MACKALL AIRPORT	MACKALL AIRPORT	MACKALL AIRPORT	MACKALL AIRPORT	MACKALL AIRPORT	MACKALL AIRPORT	MACKALL AIRPORT	MACKALL AIRPORT	MACKALL AIRPORT	MACKALL AIRPORT	MACKALL AIRPORT	MACKALL AIRPORT	MACKALL AIRPORT	
PATHFINDER																								
517 PRCHT INF				Reg Hq 28 2nd Bn 448	CoC 140	Reg Hq 7 1st Bn 256	Hq Co 84 3rd Bn 347	Hq Co 71 3rd Bn 120						DET 67										
Div Hq & Hq Co						DET 40							DET 94											
194 GI INF						1st Bn 725							BALANCE 663	DET 37										
681st GI FABN						A BTRY 48	A BTRY 67						Hq BTRY B BTRY 181											
155 AABN													135 B&C BTRY											
3RD BN 541 PRCHT INF																								
MP PLAT																								
517 SIG Co																								
224 MED Co																								
193 GI INF																								
411 QM Co																								
717 ORD Co																								
Div ARTY Hq & Hq BTRY																								
139 ENGR BN																								
460 PRCHT FABN																								
680 GI FABN																								
BTRY B 462 FABN																								

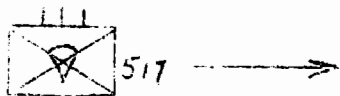
NOTES: (1) Elapsed Time: 4.5 Hours
(2) Of 7638 men transported, 7091 are of 17th AB Division and 547 are attached.
(3) 83.4% of DIVISION T.O. strength is transported.
(4) Percentages shown above are based on 7091 = 100%

BTRY B 94

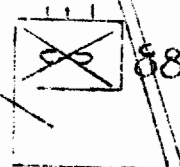
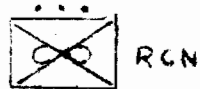
MOVING TO POSITION IN
DIVISION RESERVE



517

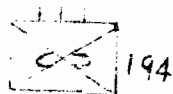


ATTACKING EAST.



PIN UP 57

517
194



IN CONTACT

ATTACKING NORTH.

DISPOSITION OF UNITS
AT THE CLOSE OF MANEUVER

9 JANUARY 1944

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

11 January 1944.

SUBJECT: A-3 Report on Maneuver CUTTHROAT.

TO: Director, Combined Airborne-Troop Carrier Maneuver
Headquarters, Camp Mackall, North Carolina.

1. GENERAL.

The combined Airborne-Troop Carrier Maneuver CUTTHROAT was ordered upon authority of letter Army Ground Forces, subject: "Joint Training of Airborne and Troop Carrier Units", dated 2 November 1943 and letter Army Air Forces, subject: "Joint Training of Airborne and Troop Carrier Units", dated 2 November 1943. Field Order #1, Combined Airborne-Troop Carrier Maneuver Headquarters, Camp Mackall, N.C., was issued on 18 December 1943. Conditions under which the maneuver was to be executed, including the requirement that a full 300 mile course was to be flown from departure bases to objectives and return in each serial, were given in a directive to the Commanding Officer of the 60th Troop Carrier Wing also on 18 December 1943; and an additional directive was given to the 60th Troop Carrier Wing on 24 December 1943.

The Wing Field Order for the maneuver was issued 26 December 1943 and received by all groups on 27 December 1943. Group Field Orders were issued on or about 1 January 1944.

2. CPX.

A CPX was held on the night of 30 December in which one simulated combat plane represented each serial scheduled for the night of D-1 Days in the maneuver. Serials took off on time, followed the prescribed courses and arrived at the objectives on time. The time schedule of both glider serials were recomputed and corrected following the CPX.

A second CPX was scheduled for the night of 2 January. Departures were delayed and in some serials cancelled on account of unfavorable weather.

CPX flights indicated that serials could be flown as planned and that lights and radio aids were satisfactory.

3. PATHFINDERS.

Four pathfinder serials, one from each group of the wing, were flown on 4 January to drop parachutists with lights and radio aids along the route. All arrived at their objectives within two minutes of schedule time, dropped their loads, and returned to their bases over the prescribed course,

4. D-1 NIGHT.

D-1 Night was originally scheduled 5 January, the night following the running of pathfinder serials. Due to unfavorable weather forecasts a postponement of 24 hours was made on 5 January.

Serial #4, flown by the 440th Group, took off from Pope Field on time on 6 January, dropped their parachutists on their objective, PDZ #1, according to schedule, and returned to the departure base over the prescribed course. Fifty planes were scheduled for take off, but only 48 took off on account of engine trouble in two planes and failure to have sufficient spare planes ready for immediate takeoff. Forty-three planes completed the mission and returned to their base over the prescribed course. Three planes became separated from the formation, joined Serial #5 and dropped their loads with Serial #5 on PDZ #2. The remaining two planes returned to the departure fields, one with engine trouble and one having gotten lost. This serial carried the 2nd Bn and Regt Hqs of the 517th Prcht Inf plus Btry "B" of the 460th Prcht FA Bn and a part of Co "C" of the 139th Eng Bn.

Serial #5, flown by the 441st Group, took off from Lumberton on time, dropped their parachutists on the objective field on schedule and returned to their departure base. Ninety planes were scheduled and all took off. This serial was joined by three planes of Serial #4 as noted above. This serial carried Co "C" of the 517th Prcht Inf.

Serial #6, flown by the 438th Group, consisting of 50 C-47's and 100 gliders in dual tow, took off from Maxton Air Base according to schedule. The take off was made in 55 minutes. The prescribed route was flown and 87 gliders were landed in Fields Nos 1 to 11 of the glider landing area in 51 minutes. Parachutists were dropped on PDZ #3 from 45 of the 49 planes which completed the mission and the return trip was made over the prescribed route. This serial carried the following:

1st Bn, 194th Glider Inf
Det "A" Btry, 681st Gli FA Bn
Det Co "C" 139th Eng Bn
"A" Btry, 460th Prcht FA Bn

Serial #7, flown by the 439th Group, consisting of 50 C-47's and 50 gliders in single tow took off from Florence Airport according to schedule. Take off was made in 31 minutes. The prescribed route was flown and 41 gliders were landed in Fields Nos 1 to 10 of the glider landing zone in 41 minutes. Following the glider landing the tugs dropped their parachutists on PDZ #3, with the exception of 1 plane which dropped its string on GLZ #11, and returned over the prescribed route. The only parachutist fatality in the maneuver was in this string due to a tangled parachute harness. Several planes returned without having dropped their parachutists. The reasons given for failure to jump parachutists included planes not flying over field properly, jumpmaster not satisfied with position and pilots using wrong switch when intending to switch on jump light. One plane made a forced landing near Magnolia, N.C., due to engine failure, without injury to personnel.

Of the 22 gliders not arriving in the glider landing area, four were landed on Mackall Airport, one on Florence airport, 3 on Maxton Airport, two on Wilmington Airport, and the remainder made emergency landings after having accidentally broken loose from their tow planes. Few injuries, none critical, were suffered in these forced landings.

The following were carried in this serial:

3rd Bn, 517th Prcht Inf
Det Hq & Hq Co
"A" Btry 681st Glider FA Bn
"B" & "C" Btrys, 155th AA Bn
Det Co "C", 139th Eng Bn
Hqs Btry & C Btry, 460th Prcht FA Bn

It should be noted in this operation that 128 gliders were landed in 11 assigned glider fields from Serials #6 and #7 in 1 hour 40 minutes and only 5 out of 128 gliders landed in other than their assigned fields.

Serial #8 consisting of 18 planes of the 441st Group took off from Lumberton Airport according to schedule. Prescribed course was flown and parachutists were dropped on PDZ #3 according to schedule. The load carried in this serial consisted of Hqs Co, 3rd Bn; Hq Co, 1st Bn, 517th Inf; Det Co "C", 139th Eng Bn; and Hqs Btry 460th Prcht FA Bn.

5. D DAY

Serial #9 was flown by the 438th Group. Serial consisted of 50 C-47's and 100 gliders in dual tow and was scheduled to arrive at the glider landing area fields Nos 12 to 15 shortly after day-break. The take off started according to schedule but was slower than was Serial #6 flown by the same group nine hours earlier. Forty-nine C-47's towing 97 gliders took off in one hour and 12 minutes.

One plane towing two gliders returned to departure field with engine trouble, and one glider cut loose at departure field.

The prescribed route was flown, but a strong north wind delayed arrival at the landing area because takeoff time was not advanced to compensate for wind. The first plane arrived at the glider landing area eight minutes after schedule but the group was far too strung out, and took one hour and 19 minutes to land. The formation of the first squadron was excessively scattered and the intervals between squadrons was much greater than scheduled.

Planes singly or in twos or threes approached the GLZ from as much as forty-five degrees off course; several tugs made a second approach before the second glider cut loose.

The formation of the second squadron was good and that of the third and fourth squadrons was fair but intervals between squadrons were far greater than scheduled. All gliders that took off from Maxton arrived in the vicinity of Fields Nos. 12 to 15; all landed in the fields of the landing area except two which landed in the rope dropping field. Return was made according to the prescribed route. The load carried in this serial consisted of approximately half of the 1st Bn of the 194th Gli Inf plus Hq Btry and "B" Btry of the 681st Glider FA Bn.

Serial #10 was flown by the 439th Group on the morning of D-1 Day. Take off was made from the Maxton Airport with 44 C-47's carrying the 3rd Bn of the 541st Prcht Inf and "B" Btry of the 462nd FA Bn. The group arrived over PDZ #1 in good formation and dropped its load exactly on time. Due to the strong tail wind, however, most of the load was landed

in woods and scrub brush beyond the field. A smoke screen on the south and east sides of the field was laid by a formation of A-20's of the TAD within two minutes before the dropping of the parachutists. The timing of the smoke with the arrival of the group was perfect and resulted in an excellent demonstration. In spite of the strong wind and over shooting the drop field, comparatively few injuries were sustained. Parachutists assembled, set up their batteries and were firing within 43 minutes of the scheduled drop time.

Serials Nos 11 to 20 inclusive, each scheduled for 40 planes, were flown from Pope Field, Lumberton and Maxton Airports according to schedule. Arrival times at Mackall field, the objective airport, were fairly accurate, only one serial being as much as 10 minutes early and one serial being 4 minutes late. Many serials used from 3 to 5 extra planes to make up for loads not carried on D-1 night. Of the 10 serials, the 438th Group flew two; 439th Group flew two; 440th Group flew three and 441st Group flew three. Interruptions to schedules of individual planes were relatively few. Of 414 take offs only 16 planes failed to complete their missions, principally because of pilots becoming lost; and only three accidents occurred. One plane had a forced landing near Shaw Field, reporting the loss of elevator control, cause unknown. One plane landed at Mackall Airport with wheels retracted. One plane nosed up at Mackall Field when brakes locked. Six out of the 10 serials were flown partially or wholly during hours of darkness. In the later serials many instances were noted of a tendency toward cockiness bordering on carelessness, such as excessively short takeoff intervals, steep turns at low altitudes, etc.

In considering the maneuver as a whole, it should be noted that it was scheduled to begin only three and one-half weeks after the completion of a similar maneuver, allowing an extremely short time for training. Two of the groups participated in both maneuvers; the remaining two groups did not arrive in the maneuver area until two weeks and less than one week respectively before the maneuver date. Of the few days available for training, considerable time was lost due to unfavorable weather, 24% of the total available training hours being recorded below minimum flying conditions.

CONCLUSIONS:

1. Maneuver plans generally showed good coordination between the 60th Troop Carrier Wing and 17th Airborne Division.

2. The field order of the 60th Wing was issued in sufficient time and adhered to with only minor changes.

3. Field orders of groups were issued later than desirable; they contained many examples of improper form and arrangement; and in at least one case contained provisions contrary to the wing field order which they had just received.

4. It is very doubtful if pathfinder personnel could reasonably expect to escape capture if dropped in enemy territory as much as 24 hours prior to the beginning of an operation. Experience in Italy seems to indicate a very short time interval between the dropping of pathfinder personnel and the arrival of the first serial of an operation.

5. The present method of hook-up for gliders and tugs in dual tows is not satisfactory. It is believed some other method can be devised enabling the take off interval to be reduced.

6. The present method of assembling dual tow tugs and gliders must be improved. A method must be devised permitting a more compact formation and one in which the interval will not vary and from which tug pilots will not easily become separated.

7. It is believed that the poor approach technique on the part of some tug pilots was due to a lack of intensive briefing and a lack of air discipline.

8. A higher percentage of successful accomplishment of glider missions should be attained. This involves better mechanical technique in avoiding accidental releases and better air discipline in reducing intentional cutoffs. A comparison of the percentages of successful glider missions between the two night serials and the day serial is interesting.

9. Correction of flight schedules to allow for the effect of wind and weather was not satisfactory.

10. Planning in advance for the maximum utilization of available rest periods is extremely necessary, particularly where the distance from take off to objective is long. Provisions should be made for crew members to sleep near the flying line and for transportation to take them back and forth. Provisions should be made for hot meals during 24 hours of the day for flight crews and maintenance personnel on the line. Unnecessary distraction from the main mission should be reduced to a minimum.

11. Cooperation and team work between each tug pilot and his glider pilots can be improved.

12. The system of navigational aids, including radar and lights as used in this maneuver is sound. Greater range in Eureka-Rebecca operation should be striven for. A satisfactory dependable homing beacon of at least 50 miles range is needed.

13. Better training of individual pilots in low altitude night navigation should be required with emphasis on bringing the poorest pilot in the squadron up to a minimum standard rather than developing one or two experts.

14. Constant practice on the part of all glider pilots is necessary to maintain their proficiency. This is as necessary for glider pilots as for power pilots.

15. Air discipline must be improved in all units. The tendency toward carelessness and lack of caution which becomes evident with an increase of fatigue should be recognized by unit commanders and immediate steps taken to counteract it.

16. The system of glider landing lights used in this maneuver is satisfactory.

17. Tug pilots and glider pilots both fail to give sufficient attention to the improvement of night vision. Use of bright cock-pit lights, flash lights in the cock-pit, matches to light cigarettes, were far more general than exceptional in the maneuver.

18. Telephone intercommunication between tug and glider pilots was not used to the maximum extent possible. Both tug and glider pilots should realize that conversation between them not only increases the safety of their operation but has an important psychological effect.

19. The control of traffic at Mackall Airport would have been more efficient had the wing personnel operating the ground-mobile station also operated the tower. If it was not desired to use tower communication facilities exclusively, a considerable improvement in the operation at Mackall airport would have resulted had there been a wing officer or communications man in the tower to coordinate tower operations with the portable ground radio control.

20. The announced plan for the employment of glider pilots after landing was not carried out.

RECOMMENDATIONS:

1. The SOP for Troop Carrier-Airborne operations be adopted and made a part of all training and maneuver operations.

2. Key personnel of wings, groups and squadrons be given a course in combat orders qualifying them to write field orders, letters of instruction, annexes, etc.

3. Pathfinder personnel be flown into enemy territory not more than one hour prior to the arrival of initial serials, with liberal use of dummies to confuse the enemy in connection with pathfinder flights.

4. That intensive efforts be made to devise some scheme whereby gliders in dual tow can be hooked up and parked prior to the beginning of the takeoff operation. This may involve using ends of several runways at a field, or other expedients where the length of one runway is not sufficient to park an entire group on it.

5. That further experiments be made in formation flying in dual tow using elements of two and possibly more. Also that all pilots be educated in the contents of T.O. 01-1-143, "Tow Plane - Glider Combinations", so that they may understand that there is a reasonable range of 15 to 20 miles per hour in dual tow cruising speed.

6. During all training that supervisory personnel pay particular attention to the performance of tug pilots in bringing their gliders to the proper approach position. The grading sheets used by instructors grading glider pilots landings should include a grading of the tug pilots approach on each landing and the squadron operations officer should pay particular attention to the reports of such grading.

7. Intensive instruction be given hook-up teams and maintenance personnel in the elimination of accidental releases.

8. That every glider pilot and tug pilot be required to explain the non-accomplishment of a mission in that every apparent case of accidental release on any mission be thoroughly investigated to ascertain whether or not the release was one hundred percent accidental.

9. That where causes of deliberate non-performance of duty are found all parties concerned be sternly dealt with to the end that all flight personnel realize that the successful accomplishment of a mission is of paramount importance.

10. Further training be given all pilots in habitually consulting the weather office and planning their flights definitely so as to correct for any abnormal weather conditions. The use of the E-6B computer cannot be too strongly emphasized in this respect.

11. That greater consideration on the part of unit commanders and operations officers be given to securing adequate rest during a period of intensive operations.

12. Any tendency to weaken or break down the system of continuous functioning of the tug plane-glider team unit should be resisted whenever encountered and utmost efforts be made to maintain the integrity of this team and to foster the team spirit which should accompany tug plane-glider operations.

13. That Airborne radar and homing equipment with greater range and greater dependability be developed for Troop Carrier-Airborne use.

14. A minimum number of glider landings be required of active glider pilots every month and that these landings not be considered satisfactory unless graded "satisfactory" by an instructor.

15. Recommend that the system of landing over two lights toward one be adopted as standard.

16. That means be devised to operate successfully at night on low altitude navigation missions without using flash lights or cock-pit lights for reading maps, schedules, etc. More extensive use of navigators would assist in this respect. Unit commanders and operations officers should give greater attention to the subject of night vision.

17. That when an advanced air field is occupied all radio facilities be operated or at least controlled and coordinated by the occupying commander or his traffic control representative.

18. That further training be given all pilots in using their fuel so as to secure the maximum range.

19. That definite plans be made and executed concerning the efficient employment of glider pilots as ground troops after landing.

20. In addition to the above recommendations, the following are repeated from the A-3 Report on the December Maneuvers:

a. That glider pilots be continuously trained in their units to maintain the flying proficiency attained at the Advanced Glider Training School at Mackall.

b. That a minimum of 20 miles straight run-in to the objective with a radio aid at the 20 mile point be considered standard.

c. That Groups be instructed if necessary to cross the parachute drop zone from any direction rather than attempt turns or make more than one pass at the objective in order to cross it from a pre-determined direction.

d. That wire intercommunication and emergency landing lights be required on all gliders on cross-country missions.

e. That a standard approved safety device be required in tug aircraft which will notify pilot when tow rope has been dropped.

f. That a minimum of 11 seconds be prescribed between aircraft during takeoff and 15 seconds between aircraft landing.

g. That more individual pilot training be given with and without gliders in low altitude night navigation under black-out conditions where possible with a minimum of navigational aids and best reliance on thorough briefing.

h. That a necessity for air discipline for both glider and tug pilots be stressed.

/s/ A. L. McCULLOUGH
/t/ A. L. MCCULLOUGH
Colonel, G.S.C.,
A-3

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

9 January 1944

SUBJECT: Report of Tactical Control Officer, I TAD.

TO : Commanding General, Combined Airborne-Troop Carrier
Headquarters, Camp Mackall, North Carolina.

1. The following I Tactical Air Division organizations participated:

From Florence Army Air Field, Tullahoma, Tennessee:
48th Fighter Bomber Group, Colonel Dixon H. Allison, Commanding,
Major Richard T. W. Rivers, loading operations and flight.

From Morris Field, Charlotte, North Carolina:
17th Air Support Communications Squadron, Major Leo Domijan,
Commanding, 2nd Lieutenants Roger H. York, William A. Truner, and
Charles B. Lockwood, Air Party Officers. 833rd Air Operations
Company, 1st Lieutenant Lester Sablosky, in command of Chemical
Detachment, Morris Field, supervised the loading of the chemical
tanks.

2. 5 January 1944. Demonstration drop of parachute bat-
talion. Six light bombers strafed landing area two minutes prior
to drop. Six additional light bombers layed smoke south and east
of area one minute prior to drop.

3. 6 January 1944. Flight from the 48th Fighter Bomber
Group, Tullahoma, Tennessee, delayed account of weather. Light
bombers from the 411th Bomb Group were released in compliance
with orders.

4. 7 January 1944. Flight from 48th Fighter Bomber Group
delayed at Atlanta, Georgia, due to maintenance. Flight of 23
arrived Camp Mackall, 1500. Pilots were briefed and instructed
to be ready for missions 8 January 1944.

5. 8 January 1944. No air coordination activities due
to inclement weather.

6. 9 January 1944. Inclement weather continues. Problem
terminated at 1030.

7. Communications. Throughout the maneuver, communications
between the control station at Camp Mackall, Air Party station 17th
Airborne Division C.P., and the airdrome control station at Hanton
was excellent except for short periods between 1930 and 2130 when,
due to the frequency assigned, commercial stations caused consid-
erable interference.

8. Summary.

a. Coordination between Troop Carrier operations and
the light bombardment strafing and smoke mission worked out very
successfully. The 48th Fighter Bomber Group were supposed to fur-
nish fighter cover. Through a combination of being late and bad
weather, fighter bombers did not fly any missions in the maneuver.
Consequently, no airplanes actually flew during the maneuver phase,
although the A-20's participated in the parachute drop demonstration.
The tactical air phase of the combined operation was therefore all
simulated.

/s/ Richard D. Dick
RICHARD D. DICK
Lt. Colonel, Air Corps
Liaison Officer, I TAD

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

10 January 1944

SUBJECT: A-4 and G-4 Report on Maneuver of 17th Airborne Division.

TO: Commanding General, Combined Airborne-Troop Carrier Maneuver
Headquarters, Camp Mackall, N. C.

1. In compliance with Memorandum this Headquarters, file ABTCAG dated 24 December, 1943, Subject: "Submission of Final Reports", the following report of the A-4 and G-4 Section is submitted:

2. Administrative Functions:

a. The following personnel were employed in the A-4 - G-4 Section:

- 1 Lt Col - G-4
- 1 Major - Asst G-4
- 1 Major - A-4
- 1 Major - Asst A-4
- 1 Captain - Glider Maintenance
- 1 2d Lt - Asst to Asst A-4
- 1 T-4 Clerk (WAC)
- 1 T-5 Clerk
- 1 Private - Asst Clerk
- 1 Stenographer

b. Arrangements were made for supplies and equipment for Maneuver Headquarters, Umpire System, Observers Bureau, and for the operation of the 60th Troop Carrier Wing and the 17th Airborne Division throughout the maneuver, as follows:

(1) Vehicles

(a) Maneuver Headquarters

- 3 light sedans
- 12 Command and Reconnaissance Cars
- 25 1/4-ton trucks
- 4 2 1/2-ton trucks

(b) Observers

- 6 Medium sedans
- 20 light sedans
- 50 1/4-ton trucks (w/PA system)
- 4 2 1/2-ton trucks

(c) Umpires

- 96 1/4-ton trucks (63 w/radio)
- 3 2 1/2-ton trucks

(d) Provost Marshal

- 4 Command and Reconnaissance Cars
- 5 1/4-ton trucks
- 4 2 1/2-ton trucks

(e) Surgeon

- 1 1/4-ton truck

(2) Desks, chairs, typewriters, stationery, etc, for the functioning of Maneuver Headquarters and Observers Bureau.

2. b. (3) Blank ammunition for both Red and Blue Forces on the basis of 20 rounds per rifle per day; 100 rounds per machine gun per day; 10 rounds per 75 pack howitzer per day; 10 rounds per 37 M1 gun per day; empty ammunition containers necessary for organic loads of the Division and for resupply requirements.
- (4) Expendable Signal, Medical, CWS, and Engineer Supplies.
- (5) "C" and "K" rations for the entire period of the Maneuver.
- (6) 5 gal gasoline cans sufficient to supply the requirements of the Division on the basis of 5 gallons per vehicle per day.

c. Arrangements were made for installation of a field telephone line between Derby landing area and A-4 and G-4 Section for the control of emergency evacuation facilities.

d. Arrangements were made to supply 17th Airborne Division with aircraft safety belts which were installed in jeeps that were transported by gliders.

e. Arrangements were made for a total blackout of the maneuver area for the first two nights of the problem through Commanding Officer, ISD # 2, 4th Service Command, Fort Bragg, N. C. and O. C. D., State of North Carolina.

f. Arrangements were made at the various departure bases for supply points for those units located at those basis prior to departure.

g. Arrangements were made for the control of Civilian Traffic within the Maneuver Area through the Commissioner of Motor Vehicles, State of North Carolina, Raleigh, North Carolina and State Highway Patrol, Raleigh, North Carolina.

h. Arrangements were made with the Carolina Power and Light Company, for the cutting of power on those high tension lines passing through or near the landing areas during the period of landing, and for red obstacle lights on towers of power line which crossed landing area.

i. Arrangements were made with civilians residing in the landing areas to vacate such premises during the period of landing.

j. Plans for traffic control of the observers convoy and the area around points selected for observation of activities by the observers.

k. Supply of the Red Forces was by the 13th Airborne Division from Fort Bragg, North Carolina by circuitous route, avoiding the area of contact.

l. Made arrangements for obtaining a special fund for purchase of emergency requirements for Troop Carrier units participating in Maneuver.

m. Made arrangements for guards and rescue equipment required on lakes in vicinity of CPZs and PPZs.

n. Arrangements were made with Commanding Officer, Pope Field to have Major Noross investigate aircraft accidents which occurred during the Maneuver.

o. A postponement of the maneuver for 24-hours necessitated informing all agencies and persons concerned as cited above, of the delay. To provide for this, a list of telephone numbers and persons to contact should be on hand at all times.

p. Mailed letters to Chief Air Raid Wardens in blackout area, and Commanding Officers of sub-depots at Army Air Bases in North and South Carolina requesting that this Headquarters be notified in event of forced glider landings.

2. q. The following officers reported from Headquarters Air Service Command and were oriented regarding responsibility of ASC for aerial resupply in Theater of operations:

- Lt Col L. E. Collins, Headquarters ASC, Mobile, Alabama
- Major J. B. Bomar, Headquarters ASC, Patterson Field, Ohio
- Captain E. H. Kiefer, " " " "
- Captain J. T. Anderson, " " " "
- Mr. R. Faltermeier, Evans Product Co, Detroit, Michigan.

r. Glider Evacuation

- (1) Flyable gliders evacuated by 38th TC Sq. by aerial pick-up. Damaged gliders evacuated to Maxton and Pope Sub-Depots by crews and equipment borrowed from Sub-Depots and 551st Parachute Infantry. Total personnel and equipment utilized was twenty (20) officers, four hundred sixty-five (465) enlisted men, one hundred four (104) trucks (all types) and eighty (80) trailers. To prevent pilfering of medical equipment, pyrotechnic pistols, flares, abandoned weapons and personal property, subject equipment was taken from gliders immediately after landings and returned to 60th TC Wing Headquarters.
- (2) Troop Carrier Groups notified by Task Force when gliders were located and assigned to some other unit or sub-depot.
- (3) Report on damage to gliders and landing locations is as follows:

FIELD NUMBER	GLIDERS ASSGD	GLIDERS LANDED	GLIDERS BADLY DAMAGED	GLIDERS SLIGHTLY DAMAGED	FLYABLE GLIDERS UNDAAGED	STRAYERS	FROM FIELD NUMBER
1	15	11	4	1	6	-	-
2	15	13	4	1	8	1	7
3	14	10	3	7	0	-	-
4	16	12	6	2	4	-	-
5	14	13	3	7	3	-	-
6	10	7	0	2	5	1	8
7	14	13	1	2	10	-	-
8	14	13	0	3	10	1	6
9	14	15	0	5	10	1	10
10	8	6	4	2	0	1	11
11	16	15	0	5	10	-	-
12	25	25	0	2	23	0	-
13	25	22	0	3	19	-	-
14	25	25	1	4	20	1	15
15	25	25	2	6	17	1	13
Total in GLZs		225					
STRAYS		25	2	7	16	-	-
TOTAL	250	250	30	59	161	7	-

(4) Percentage of total gliders used which:

- (a) Landed in GLDs 90%
- (b) Were badly damaged 12%
- (c) Were slightly damaged 23.6%
- (d) Were flyable (undamaged) 64.4%
- (e) Landed in wrong GLZ 2.8%

(5) Status of stray gliders was as follows:

<u>Location of strays</u>	<u>Condition</u>
4 Mackall Airport	Flyable
8 Maxton AAB	Flyable
2 Wilmington Airport	Flyable
1 Florence AAB	Flyable
1 Pope Field	Flyable
1 3 mile East of Candor	Slight Damage
2 Tabor City, N. C.	(1 slightly damaged 1 major damage)
1 10 mile West Florence, S. C.	Slight damage
1 1 mile north Florence, S. C.	Major damage
1 15 mile NE Sumter, S. C.	Slight damage
1 3 1/2 mile S. Sumter, S. C.	Slight damage
1 12 mile S Nichols, S. C.	Slight damage
1 10 mile SE Heap, N. C.	Slight damage

3. Tactical Functions:

a. An A O for the Blue units was drafted by coordination with all Special Staff Sections, this Headquarters, approved and published as A O # 1 to accompany F O # 1. This order embodied all information necessary for all Blue Units in order to prepare their own A Os and all information required to be submitted to this Headquarters by the various subordinate units.

b. Daily Aircraft-Glider Status Report submitted to Director.

c. A plan for resupply, using Laurinburg-Maxton Army Air Base as a departure field, was prepared and a conference held with A-3 and A-4, 60th TC Wing regarding details of the operation of this plan.

d. The requirements for supply and resupply of the 17th Airborne Division, on and after D / 1, were submitted to this Headquarters, (See Annex # 1) broken down by this Headquarters into plane loads and serials, and the resulting aircraft requirements were then submitted to the 60th TC Wing for preparation of the Movement Table of that Headquarters.

e. Periodic reports were received from the 17th Airborne Division and 60th TC Wing, and a G-4 estimate of the situation was given to the Commanding General at various times during the operation.

f. 17th Airborne Division Supply Plan attached as Annex # 1.

g. Provided 17th Airborne Division with three gliders for installation of radios.

h. Gliders

(1) Requirement for 270 gliders modified with interphone and landing lights (165 of above total also modified with deceleration parachutes) was fulfilled only by converting all Sub-Depot activity from maintenance to modification work. Bad weather delayed both deliveries and maintenance

i. Airplanes

(1) A total of 208 C-47 airplanes was assigned to the four (4) participating Groups. Airplanes of 438th and 439th Groups (Glider tugs) were modified with tow rope release indicator light. Twenty-two (22) airplanes were available from 441st Group as spares for other three Groups during initial serials. All later serials required only forty (40) airplanes per Group, therefore, spares were not required.

j. Aircraft Accessories and Tie-Down Ropes

(1) Each airplane was provided with set of loading ramps and twenty-four (24) pieces of one-half inch rope fifteen (15) feet long. Sufficient fifteen (15) foot lengths of one-

3. j. (1) Cont'd

half inch rope were provided (in a pool) in order to have an average of eight (8) ropes per glider in each loading area.

k. Supplies

- (1) Arrangements for AAF supplies were made with Sub-Depots twenty (20) days prior to problem. Aviation gasoline requirements, as listed below, were submitted fifteen (15) days in advance.

	<u>91 octane</u>	<u>100 octane</u>
Maxton (includes Lumberton and Florence)	344,990 Gal.	112,500 Gal.
Pope Field	<u>288,610 Gal.</u>	<u>20,000 Gal.</u>
Total	633,600 Gal.	132,500 Gal.

4. Conclusions and Recommendations:

a. Administrative

- (1) It is again recommended that the area of future Airborne Maneuvers be selected in a less congested area and by all means, at some distance from an existing Post, Camp, or Station.
- (2) It is recommended that Airborne and Troop Carrier Commands establish a standard procedure with regard to the providing of cargo lashing ropes. Recommendations as to quantities, size, length, and distribution of ropes should be made by Airborne Command to Troop Carrier Command.
- (3) Requirements for additional installations and modifications of gliders for normal training and maneuver activities should be kept current at all times to prevent the necessity for undue amounts of installation work to be accomplished immediately prior to maneuvers.
- (4) Recommend that every effort be made to effect the adoption of snap hooks for connecting tow ropes to tugs and gliders. Such an arrangement would greatly increase speed and safety of glider take-offs. A more satisfactory plug for interphone connection is also a requirement if interphone in its present development is to be used at all.

b. Tactical

- (1) Attempt should be made in a supply plan of an Airborne Division so as to provide an increasing reserve of all supplies in the forward area, so that a delay in the arrival of resupply serials, due to weather or other causes, will not immobilize the troops in the combat area. On the other hand, the movement of the Airborne Division should not be burdened down with large quantities of supply. Certain chances must be taken, and the minimum amount of supplies should be carried within the Division consistent with reasonable safety.
- (2) It is recommended that a plan for the use of a Quartermaster railhead Company as an airhead company, performing identical duties at the airhead of an Airborne operation as that performed at railheads for Infantry Divisions, and the necessary training therefor, be submitted to AGF for consideration.

BASSETT EAGAN
G-4 A-4

1 Incl.:
Incl #1 - Annex # 1.

4 January 1944.

MEMORANDUM:

SUPPLY - 17TH AIRBORNE DIVISION

1. To support elements of the Division engaged in the combat area for one day, the following tonnages according to classes of supply are necessary:

- | | |
|-----------------------|------------|
| a. Class I (C Ration) | 20.5 tons |
| b. Class II and IV | 7.0 tons |
| c. Class III | 12.8 tons |
| d. Class V | 194.5 tons |

2. Carried into the forward area from 2230 D-1 to 1930 D-1; when the Division will have closed, the following tonnages of supplies were included in organic unit loads and with Division trains:

- | | |
|--|------------|
| a. Class I
(One K ration and one D ration with troops
one C ration with Division Train
each man carries 24 halogone tablets,
sufficient to purify 3 gals of water) | 37.8 tons |
| b. Class II and IV
(Includes one blanket per individual -
carried by units) | 44.0 tons |
| c. Class III
(Each truck carries 20 gals of gas) | 24.8 tons |
| d. Class V
(Units carry approximately 195 tons.
Division train carries 1 U/F Artillery
Ammunition, plus small arms and special
ammunition) | 288.0 tons |

3. Immediately after the Division has completed entering the forward area, resupply missions under Task Force Control begin. Supplies are carried in serials of 40 planes each, payload of one plane is 4,400 lbs. By 1755 D-2 with the arrival of Serial 30 (10th resupply serial) a reserve of all classes of supply sufficient for one day over and above the current requirements of the Division will have been delivered on the forward airfield.

- To cover emergencies - rations, gasoline, water and ammunition sufficient for a Glider Battalion CT or a Parachute Bn CT packed for aerial delivery are available from Task Force Supply Base on 6 hours call.
- Sufficient parachutes (450) and aerial delivery equipment (50 A-5 containers-450 rifle containers) to jump a Parachute Infantry Battalion are available from the Supply Base on call.

4. Unit trains consist of 266 $\frac{1}{4}$ ton trucks, 162 $\frac{1}{4}$ ton trailers and 188 hand carts M4A3 or M6A1. In Division trains are 45 $\frac{1}{4}$ ton trucks and 51 $\frac{1}{4}$ ton trailers - at forward airfield this latter transportation will be supplemented with 30 $\frac{1}{4}$ ton trailers from the 155th AB AA Bn. No transportation in excess of T/E is being used.

/s/ Charles W Koester
/t/ CHARLES W. KOESTER
Lt Col, AG of A, G-4
17th AB Div

ANNEX #1

APPENDIX D

Special Staff Sections

SPECIAL STAFF SECTIONS

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

10 January 1944

SUBJECT: Report of Signal Section on the 17th Airborne
Division and 60th Troop Carrier Wing Maneuver

TO : Maneuver Director, AB-TC Maneuver Headquarters

SYNOPSIS: I Summary
II Comments
III Recommendations
IV Report on Communications For Umpires

I Summary

Upon receiving orders to prepare for the January 6 Airborne Maneuver, the Combined Airborne-Troop Carrier Headquarters Signal Section called a meeting of the Signal Officer of the 17th Airborne Division and the Communications Officer of the 60th Troop Carrier Wing. It was here that the policies under which the Task Force Signal System would operate were determined with the concurrence of all concerned. This included the matter to be contained in the Signal Operation Instructions such as frequencies, call signs, etc. which had to be selected so as to provide unity and coherence and prevent duplication, the wire requirements, both telephone and T/W between Departure Airfields and Task Force Headquarters and the special equipment and personnel short of T/O and T/E strength or required for special functions.

The telephone and T/W wire net had to be commercially installed for the most part and the rest was installed by the 335th Signal Company. It was operated by Army personnel. A complete detailed request had to be sent to the Fourth Service Command for approval. This contained all the telephone and T/W circuits and machines and the termination of each circuit listing the location, building, type of switchboard and man in charge.

Personnel and equipment requirements submitted and procured will be found in inclosure #1. It is important to note that due to the size and newness of Camp Mackall, they did not have enough signal supplies on hand to handle the initial and subsequent resupply of an Airborne Division in an operation of this type. Therefore, this had to be anticipated and a master requisition prepared and forwarded to Fourth Service Command with a deadline date of two or more weeks before the start of the maneuver. It contained an estimate of the expendable signal supplies to be used by the Division with an ample reserve thrown in. This requisition also included the signal supplies to be used or expended by the umpire communications system.

Major Hornby was detailed as the umpire signal officer and it was his task to prepare the requisition for personnel and equipment for the operation of the umpire communications system. This information will be found in his report which is part IV of this report.

Rpt of Signal Sect - contd.

For the communications plan set up by Task Force Headquarters, refer to Annex #4 to Field Order #1 and Signal Operation Instructions #1. The plan was an effective one and was carried out as stated except in the following cases:

a. A short period when the Forward Echelon was unable to contact the Rear Echelon. This situation was taken care of by means of the Task Force station relaying messages to the rear.

b. The liaison plane did not operate during most of the problem.

c. The Forward Echelon left the command net and sent their traffic over the Tactical Air Division Net.

d. Base Commander at Pope Field ordered Airdrome Control Party out of tower after takeoff of #4 Serial on D-1 day after arrangements had previously been made for Airdrome Control to be operated by said party.

e. The six low-powered radio beacons used as navigational aids were considered unsatisfactory as their signals were too weak to be received at sufficient distances to assist the navigating of aircraft.

f. The Forward Echelon sent by Radio a long message encoded by Converter M-209 which could not be broken down at this Headquarters. A message of this type should have been encoded in the Brevity Code of the Signal Operating Instructions.

g. Frequencies allotted to Maneuver Headquarters by higher headquarters for this operation were not the most effective for this area and the time of year.

h. 17th Airborne Division communications system was inadequate for the operation just completed. A detailed survey will have to be made.

II Comments

Due to the complicated installations and difficulties in supply procurement, the time element was not considered sufficient by this section.

The Signal Section of Combined Airborne-Troop Carrier Headquarters showed a need for a Signal Supply Officer in addition to the Air Communications Officer and Ground Signal Officer. He should be directly responsible to the Signal section due to the type of equipment involved and the means of procuring it. In addition, one Air Communications Umpire and four Ground Communications Umpires should be added to the umpire requirements. These people to prepare a record of the technical and operational successes and difficulties encountered by the participating troops throughout the operation.

Observation of the operation of the glider-borne 499 Radio showed it to be technically efficient but tactically inefficient. This was the result of the inability of the men to disassemble the glider and get it to a suitable location inside of two and a half hours.

Rpt of Signal Sect - contd.

Insufficient knowledge on the part of glider pilots in the proper use of the glider interphone system. In cases where glider pilots were sufficiently informed in the use of the glider interphone system, operation of the system was satisfactory. There is no question but that the glider interphone system properly used is mandatory for large operations such as those carried out in this maneuver.

In approximately 90% of all radar approaches in this operation, the maximum possible range of operation was achieved. Of the 10% considered unsatisfactory, the cause can be laid to frequency drift in the Airborne equipment and the fact that the 440th and 441st Troop Carrier Groups have had very little experience so far in the operation of this equipment. The 440th and 441st Troop Carrier Groups are to be commended for the performance they gave.

Modified Eureka Beacons -- two AN/APN-2 Rebecca units were transformed into transponder beacons producing a beacon with a considerably greater power output than either AN/PPN-1 or AN/TPN-1. These two beacons were located at Clinton, North Carolina and Timmonsville, South Carolina. Ranges of up to 42 miles at altitudes below 1000' were secured. Operation of these beacons were considered excellent.

There was a lack of cryptographic and signal security in the operation. It was found that both commissioned and enlisted personnel were violating signal and cryptographic procedures.

The time involved in the setting up of portable radio range was approximately three hours. This is considered too great a length of time between the initial air landing and the operation of this range in order for it to be tactically used by incoming serials following the initial air landing.

III Recommendations

a. The scope of the task is great enough to warrant the use of a Signal Supply Officer and Air and Ground Communications Umpires in order to get the complete picture.

b. All efforts should be made so that operators of such new equipment as glider interphone systems be completely briefed in their use as the failures encountered on this maneuver were caused by the fact that Glider Pilots did not know how to operate them properly.

c. Radar training should be constant with all groups and actual navigational flights made in order to increase the efficiency of Radar personnel.

d. The two high-power beacons used during the maneuver gave excellent results and it is recommended that further study be carried on with a view to increasing the distance of operation.

e. Continuous training in Signal and Cryptographic security must be given so that violations are kept to a minimum.

Rpt of Signal Sect - contd.

f. Dry Runs in the setting up and operation of the Portable Radio Range should be given to the point where it can be set up and tactically used in an air landing operation.

g. The Signal Section must be assigned to a Task Force Headquarters as far ahead of the actual operation as time will permit.

h. The signal troops assigned to this headquarters must consist of one signal operations company and one signal construction company of a signal battalion.

i. A modified SCR-299 mounted in a jeep will have to be substituted for the glider-borne SCR-499 to provide it with the desired mobility. This and other recommendations on signal equipment and personnel will be made through the proper channels after the full report and recommendations of the 17th Airborne Division are received.

j. A more careful study and selection of frequencies is essential in order to have the operators and equipment obtain their maximum efficiency.

/s/ T. F. Haley
T. F. HALEY
Major, SC
Signal Officer (G)

/s/ E. W. Keirstead
E. W. KEIRSTEAD
Captain, AC
Communications
Officer (A)

2 Incls.

- Incl. 1 Personnel and Equipment Requirements
of Maneuver Participants
- Incl. 2 Signal Operation Instructions

INCLOSURE #1 to Report of Signal Section on the 17th Airborne
Division and 60th Troop Carrier Wing Maneuver
dated 10 January 1944.

Personnel and Equipment Requirements of Maneuver Participants

<u>Item</u> <u>Required</u>	<u>Amount</u>	<u>By</u>	<u>Item</u> <u>Received</u>	<u>Amount</u>	<u>From</u>
Wire V-110	200 mi	AB-TC Hq	Wire V-110	200 mi	4th Inf Div (AGF)
Wire V-130	200 mi	AB-TC Hq	Wire V-130	196 mi	4th Inf Div (AGF)
Radio SCR-224	20 each	17th A/E Div	Radio SCR-224	5 each 5 each 10 each	550th A/E Inf 13th A/B Div Signal Supply Camp Mackall
Radio SCR-299	1	AB-TC Hq	Radio SCR-299	1	19th Airdrome Squadron
Radio SCR-299	3	60th TCW	Radio SCR-299	3	88th Sub Depot, Pope Field
AN/PPN-1	2	60th TCW	AN/PPN-1	2	Loc. Raton & Camp Evans
Signal Supplies Expendable ABTC Hq			Signal Supplies Expendable Fourth Service Command		
Teletype Swb BD-100	1 each	AB-TC Hq	Teletype Swb BD-100	1 each	AGF
Telephone Central TC-4	2 each	AB-TC Hq	Telephone Central TC-4	2 each	AGF
Telephone Swb ED-11	8 each	AB-TC Hq	Telephone Swb ED-11	8 each	AGF
Telephones EE-8A	65 each	AB-TC Hq	Telephones EE-8A	65 each	AGF
Radio SCR-299	1 each	AB-TC Hq	Radio SCR-299	1 each	17th A/B Div.
Radio SCR-299 Convertors	1 each	AB-TC Hq	Radio SCR-299 Convertors	1 each	38th TC Sq.
M-209	2 each	AB-TC Hq	M-209	2 each	Hq Co, 1st Inf Brigade

<u>Personnel</u>	<u>No.</u> <u>Needed</u>	<u>By</u>	<u>No.</u> <u>Received</u>	<u>From</u>
Code Clerks	3	AB-TC Hq	3	Hq Co, 1st Inf Brigade
Message Center Clks	3	AB-TC Hq	3	Hq Co, 1st Inf Brigade
Radio Operators	6	AB-TC Hq	6	Hq Co, 1st Inf Brigade
Radio Operators	4	17th A/E Div	4	Hq Co, 1st Inf Brigade
Radio Mechanics	2	AB-TC Hq	2	38th Troop Carrier Squadron
Teletype Operators	2	AB-TC Hq	2	389th Signal Company
Teletype Operators	4	AB-TC Hq	4	60th Troop Carrier Wing
Teletype Operators	2	AB-TC Hq	2	Hq Co, Airborne Command

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Blue Force

SIGNAL OPERATIONAL INSURANCE

HQ ABTC TASK FORCE

COPY NO. 83



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Signal Operation Instructions

Preface No. 1

Hq ABTC Task Force
Camp Mackall, N. C.
26 December 1943

Effective 0001

The following Signal Operating Instructions are issued for use by the units of the Airborne Troop Carrier Task Force. All items are effective on the date and at the time shown. When changes to these instructions are issued by this headquarters, the SOI item that has been superseded will be withdrawn and destroyed by burning.

DONOVAN

OFFICIAL:

C. B. DEGAVRE
G-3

Distribution "S"

~~_____~~
Item 1-1

Page 1
of 1 Sheet

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Signal Operation Instructions

Index to Signal Operation Instructions

No. 1

Hq ABTC Task Force
Camp Mackall, T. C.
23 December 1947

Effective 0001

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Preface	1-1
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~~SECRET~~
Item 2-1

Page 1
of 1 Sheet

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Signal Operation Instructions

Distribution "S"

No. 1

Hq. ABTC Task Force
Camp Mackall, W. C.
26 December 1943

Effective ~~0001~~

<u>Unit</u>	<u>No. of Copies</u>
Hq. ABTC Task Force	12
Task Force Signal Office	20
17th AB Division	10
30th TC Wing	10
1st Composite Air Support	5
602d AB Engineer Aviation Bn	<u>2</u>
	59 copies

~~SECRET~~
Item 3-1

Page 1
of 1 Sheet

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~~SECRET~~
SIGNAL OPERATION INSTRUCTIONS

BREVITY CODE

NO. 1

Hq ABTC Task Force
Camp Mackall, F. C.
26 December 1943

EFFECTIVE 0001

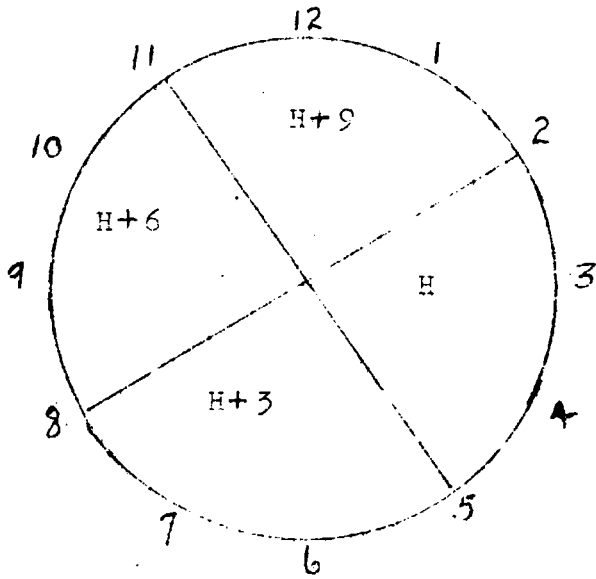
1. The Brevity Code is issued for use by the originator of a message as a method of keeping secure, for a limited time only, the information contained in the message. The main purpose of the code is brevity for speed in transmission.

2. To employ the code, select coordinates representing the desired word by reading right and up. The prefix "BC" (Brevity Code) is used as the first group in any message employing this code. For example, at H+1 hour, if we desire to send the following message "Enemy resistance right flank", the encoded text would be: BC MI NO MI HO.

3. If transmitted by radiotelephone, the phonetic alphabet must be used.

4. For ease in encoding and decoding, a diagram similar to the following should be made. In this way, time can easily be figured forward and backward of H hour.

EXAMPLE: Assuming H hour is 0200 all messages written after H hour i.e. from 0201 to 0500 inclusive would use the first horizontal line of the code, all messages written from 0501 to 0800 inclusive would use the second horizontal line, all messages written from 0800 to 1100 would use the third horizontal line etc. This would hold either prior to or after D day, A.M. or P.M.



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Item 4-5

~~SECRET~~
 SIGNAL OPERATIONS INSTRUCTIONS
 BREVITY CODE
 NO. 1

Hq ABTC Task Force
 Camp Mackall, N. C.
 26 December 1943

EFFECTIVE 0001

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H	Accomplish (ed)	Automatic	Clearing	Departure	Feet	Gun
Q	Adjacent	Avoid	Column	Deplane	Field	Half
V	Advance (ed) (ing)	Azimuth	Combat	Deploy	Fighter (s)	Half-track
L	Advise	Damage	Command (er) (ing)	Designate (ion)	Fire (d) (ing)	Have
F	After	Base	Commit (ed)	Destroy (ed)	First	Head
W	Aid	Battery (ies)	Communicate (tions)	Direction	Five Fifth	Head-qtrs
O	Air	Battalion (s)	Company (ies)	Discontinue (s)(d)(ing)	Flank (s) (ed)(ing)	Heavy
A	Airplane (s)	Being	Compass	Disembark	Flight	Held
B	Airport	Bivouac	Concentrate (d)(ing)(ion)	Displace (d)(ing)	Food	High (er)
K	Alert	Boat	Contact (ed) (ing)	Distribute (ion)	For	Hill
M	Along	Bomb (ed)	Contaminate (d)	Division	Force	Hold
X	Alternate	Bombardment	Continue (d) (ing)	Drop (ed) (ing)	Four Fourth	Hour (s)
E	Altitude	Bomber	Coordinates	Dump	Forward	Howitzer
N	Ammunition	Boundry	Counter-attack	East	Friendly	Hundred (s)
T	Anti-aircraft	Bridge	Cover (ed) (ing)	Echelon	Front	Identify
R	Antitank	Caliber	Credit (s)	Eight Eighth	Gallon (s)	Immediately
I	Approximate	Camouflage	Creek	Replacement	G-I (S-1)	In
C	Area	Captured	Cross (ing) (ed)	Enplane	G-2 (S-1)	Incomplete
Y	Armed	Casualties	Darkness	Enemy	G-3 (S-3)	Infantry
U	Armored	Cease (d)	Day	Engineer	G-4 (S-4)	Information
Z	Army	Genetary	Dead	Entrench (ed)(ment)	Gas (sed)	Is-Are
P	Arrive (d) (ing)	Chemical	Defend (ed)	Equipment	Gasoline	Jump (ed)
J	Artillery	Civilian	Defilade	Establish (ed)(ing)	Glider (s)	Junction
D	Assemble (d) (ing)(y)	Class (ified)	Degree	Evacuate (ions)	Ground	Lake
S	At	Claim	Delay	Execute (d)	Group	Land (ing)(ed)
G	Attack (ed) (ing)	Clear	Demolitions	Extend	Guard (ed)(ing)	Large
After H	HR C	E	K	M	H	Q
After H+3	I		F	S	C	L
After H+6	J		P	W	X	A
After H+9	H			Q	F	B

REPEAT THE CYCLE FOR THE FOLLOWING

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UNCLASSIFIED
 SIGNAL OPERATING INSTRUCTIONS

Brevity Code

NO. 1

Hq ABTC Task Force

Camp Mackall, N. C.

December 1943

EFFECTIVE 0001

H	Leader	Nine Ninth	Permission	Reinforce (d)(ments)	Six Sixth	Troops
Q	Left	Normal	Personnel	Remain (ing)	Sketch	Truck (s)
V	Light	North	Phase	Replace (ments)	Slope	Two
L	Line (s)	Hot	Photograph (s)	Report	Smoke	Unit
F	Litter	Number	Pilot (s)	Request	Sniper (s)	Unknown
W	Locate (d) (ions)	Objective	Platoon (s)	Reserve (s)	South	Use (ed) (ing)
O	Lose	Observe (d) (r) (ation)	Point	Resist- ance	Speed	Vehicle (s)
A	Low (er)	Obstacle	Pontoon	Return	Squad (s)	Vicinity
B	Machine gun (s)	Occupy (ied)	Position (s)	Ridge	Squadron (s)	Water
K	Map	Of	Post	Rifle	Start (ed)(ing)	Weaken (ed)(ing)
M	Mark	Officer (s)	Prepare	Right	Station (ed)	Weapon (s)
X	Medical	Oil	Primary	River	Straffing	Weather
E	Noct	On	Prisoner (s)	Road	Stream (s)	West
N	Men	One	Protect (ed)(ing)	Runway	Sup ly (ies)	Where
T	Messenger	Operation (s)	Provide	Scout (s)	Support (ed)(ing)	Will
R	Mile (s)	Order (s) (ed)	Pursuit	Second	Take (n)	Wind
I	Mine (s)	Organize (d)(ing)	Radio	Secondary	Tank (s)	Wire
C	Mission	Our	Rain	Secure (d)	Team (s)	Withdraw (ing)
Y	Ill	Outpost	Rail	Send	Ten Tenth	Woods
U	Mortar (s)	Over	Range	Seven Seventh	Thous- and	Wounded
Z	Motorized	Overlay	Reach (ed)	Set	Three Third	Yards
P	Move (d) (ing)(ments)	Parachute (ists)	Ready	Shelled	To-Tow- ard	You (r)
J	Near (ing)	Park	Rear	Shuttle	Train (s)	Zero
D	Wood (ed)	Patrol (s)	Reconnais- sance	Signal	Transport (s)(ation)	Zone (s)
S	New	Penetrate (d)(ing)	Reconnais- sance	Signal	Trap	No. M54
G	Night	Permanent	Regiment (s)	Signal Station	Bench (s)	No. M48
After H	HR P	F	L	N	I	S
After H+3	J	E	G	T	D	H
After H+6	K	Q	R	M	Y	B
After H+9	V	H	A	D	C	G

REPEAT THE CYCLE FOR THE NEXT 12 HOURS

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SIGNAL OPERATING PROCEDURES

IDENTIFICATION PANEL CODE

NO. 1

Hq ABTC Task Force
Camp Mackall, N. C.
28 December 1943

EFFECTIVE 1/1/44

ENCODING

<u>Unit</u>	<u>Panel</u>	<u>Unit</u>	<u>Panel</u>
17 AB Div	112	194 Glider Inf	119
517 Frcht Inf	113	1st Bn	117
1st Bn	116	2nd Bn	115
2nd Bn	125	Hq 17 AB Div Arty	114
3rd Bn	121	460 Frcht FA Bn	123
4th Bn	128	680 Glider FA Bn	126
(1st Bn CT, 541st Frcht Regt)		681 Glider FA Bn	120
193 Glider Inf	118	155 AA Bn	122
1st Bn	127	139 Engr Bn	129
2nd Bn	124		

DECODING

<u>Code No.</u>	<u>Unit</u>	<u>Code No.</u>	<u>Unit</u>
112	Hq 17 AB Div	120	681 Glider FA Bn
113	517 Frcht Inf	121	3rd Bn, 517 Frcht Inf
114	17 AB Div Arty	122	155 AA Bn
115	2nd Bn, 194 Glider Inf	123	460 Frcht FA Bn
116	1st Bn, 517 Frcht Inf	124	2nd Bn, 193 Glider Inf
117	1st Bn, 194 Glider Inf	125	2nd Bn, 517 Frcht Inf
118	Hq 193 Glider Inf	126	680 Glider FA Bn
119	Hq 194 Glider Inf	127	1st Bn, 193 Glider Inf
		128	4th Bn, 517th Frcht Inf (1st Bn CT, 541st Frcht Regt)
		129	139 Engr Bn

In case of CT's, use panel number assigned to infantry unit headquarters

EX: 193rd Glider Inf CT 118

Item 5-1

Page 1
of 1 Sheet

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Signal Operations Instructions

Map Co-Ordinate Code

No. 1

JTC Task Force
Mackall, N. C.
26 December 1943

Effective 2221

1. The following Map Co-Ordinate Code is for use on all maps. Locations may be expressed either as grid co-ordinates or in terms of latitude and longitude. Always precede and end code co-ordinates with XX which will make three five-letter groups for a set of co-ordinates or five five-letter groups for expressions of latitude and longitude.

Example: Grid Coordinates 249.7 - 583.1 (as of D+2.)
 Encoded XXWNO ETRBA GEQXX

Example: Latitude & Long. Lat. 26°45'30" - Long. 15°20'10"
 (as of D+1.)
 Encoded XXMHP UEVLO CAPSD VUHCL DGAXX

2. Map Locations expressed in this code are considered as being "Clear Text" when included in messages written in plain language. Therefore when cryptographing such messages, the code is also cryptographed.

3. The following alphabets will be used for encoding messages on the days indicated.

Effective	DIGIT										Point	Dash	Degree	Minutes	Seconds	Lat.	Long.
	1	2	3	4	5	6	7	8	9	0							
D-1 15 Nov	H	N	K	P	F	V	M	Y	W	A	J	P	K	M	C	U	L
D 1 Dec	R	L	S	Z	O	H	B	G	V	H	M	P	O	S	G	C	K
D+1 15 Dec	D	H	O	E	V	F	N	R	Y	C	J	P	U	L	A	M	S
D+2 1 Jan	Q	W	G	N	S	X	E	A	O	V	E	P	D	U	L	I	Q
D+3 15 Jan	H	J	P	X	K	E	U	E	U	N	M	C	D	E	O	Y	G
D+4 1 Feb	F	H	W	C	A	F	B	D	M	N	D	O	Y	S	G	I	V
D+5 15 Feb	P	S	H	B	O	K	E	U	U	Q	E	C	X	N	Y	N	C

4. In addition to the above, units can give their location with respect to pre-selected points numbered in accordance with Division directive. It is imperative that these points be checked and rechecked when transcribed to the map.

5. A third method is to encode coordinates by use of the Brevity Code.

6. The SOI does not restrict the use of other codes within a particular unit. The caution observed is that when communicating outside of that unit, one of the above codes must be used.

~~SECRET~~
Signal Operation Instructions

UNCLASSIFIED

Pyrotechnic Code

No. 1

Hq ABTC Task Force
Camp Mackall, N. C.
4 January 1944

Effective 0001

<u>Plane to Ground</u>	<u>Message</u>	<u>Ground to Plane</u> or <u>Ground to Ground</u>
Red Star Cluster	Display Panels Identify Self	
Green Star Cluster	Mark Front Lines	
Parachute Green Blinker Flare	Alert for hostile Air or Tank attack	
	Not OK to land	Single Star Green
	Need Reinforcements	Single Star Red
	Need Supplies	Single Star Yellow

~~SECRET~~
Item 7-2
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~~SECRET~~

SIGNAL OPERATION INSTRUCTIONS

Authenticator Code

UNCLASSIFIED

Hq ABTC Task Force
Camp Mackall, N. C.
26 December, 1943

EFFECTIVE 0001

"PISTOL PACKIN MONIA"

F	I	1	S	T	0
L	2	A	C	3	K
4	N	M	B	D	E
F	G	5	H	6	J
7	Q	R	8	U	9
V	∅	Y	X	Y	Z

- D-1 PISTOL PACKIN MONIA
- D MY WAR BONDS TODAY
- D+1 AMERICAN HOMESTEAD
- D+2 ROUGH AND READY
- D+3 JOSEPH STEALIN
- D+4 EASY DOES IT
- D+5 SYNTHETIC RUBBER
- D+6 WINSTON CHURCHILL

The above phrases will be used on the days indicated commencing 0001. In order to construct the authenticator block, leave the numerals in same position as shown in the block above, and employ the letters of the key phrases, using each letter of the alphabet only once and filling in the spaces not occupied by the numerals. After using all the letters of the key phrases, fill in the remainder of the block with the remaining letters of the alphabet. Since there are 36 squares, this means that all letters of the alphabet will be used. The letter O is designated as 0 -- the numeral zero is designated as ∅.

To employ this code, select any two letters or numerals on the diagonal of a rectangle, reading from left to right and answer with the letters or numerals on the opposite diagonal of the rectangle. Each radio operator should keep a check list of all challenges used so as to avoid repetition and thereby prevent the enemy from compromising this code.

	<u>Challenge</u>	<u>Answer</u>
Ex:	LU	73
	AZ	WK

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Signal Operations Instructions
Cipher Lists For Converter M-209

No. 1

Hq NSC Task Force
Camp Mackall, N.C.
26 December 1945

Effective 0701

EXPLANATION OF M-209 INDICATOR:

1. There are 2 indicators used with the M-209 Converter in enciphering and deciphering messages. One is called the "System Indicator" which is a 2 letter group appearing in the S. O. I. as a diagraph. This group represents the PIN and LUG settings to be used for a certain time or date. The other indicator is called the "Message Indicator" which consists of six letters picked at random and represents the position of the six key wheels.

STEPS:

2.
 - A. Set letter counter at zero.
 - B. Turn encipher-decipher knob to "C".
 - C. Select six letters at random for position of key wheels.
 - D. Write down on Message blank, in two three-letter groups, the six letters selected.
 - E. Succeed second three-letter group with "System Indicator".
 - F. Select one letter of the alphabet at random, duplicate it and put it preceding the first three-letter group of the "Message Indicator".
 - G. You now have a combination of indicators consisting of two five-letter groups.
 - H. Encode the first letter, which does double duty, at least 12 times.
 - I. From the printed slip, you have now obtained the real "Message Indicator".
 - J. Turn the letter counter to zero.
 - K. Set up the six key wheels according to the printed tape. In case, say, the 6th letter on the tape is "Z" and there is no "Z" on the sixth wheel, take the next letter. That is the purpose of encoding the first letter twelve times, so as to obtain six useable letters.
 - L. Encode the message.
3. It must be borne in mind that the success of the Converter depends on accuracy.
4. To insure security, never transmit as the "Message Indicator" the settings obtained from the printed tape. Also never select an identical "Message Indicator" using the same PIN and LUG settings. If two messages happen to have identical indicators, the system can be broken down for that day.
5. EXAMPLE: A. K - letters selected at random.
B. KKLTFN - Message indicator.
C. AB - System indicator.

Appears on Message: NR1 KKLTFN GFNAB - Message - KKLTFN GFNAB -
Time Signed.

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 Signal Operation Instructions

Cipher Key Lists for Converter M-209

No. 1

Hq ABTC Task Force
 Camp Mackall, T. C.
 26 December 1943

Effective 0001 D-1 Day to 2400 D Day

LUG SETTINGS

PIN SETTINGS

	1	2	3	4	5	6	1	2	3	4	5	6
1	X						A					
2	X						A					
3	X						A					
4	X						A					
5		X					A					
6		X					A					
7		X					A					
8		X					A					
9		X					A					
10		X					A					
11		X					A					
12		X					A					
13		X					A					
14		X					A					
15		X					A					
16		X					A					
17		X					A					
18		X					A					
19		X					A					
20		X					A					
21		X					A					
22		X					A					
23		X					A					
24		X					A					
25		X					A					
26		X					A					
27		X					A					

TWENTY-SIX LETTER CHECK: LETER CAEME QUINZ NINCH MILLE Y

System Indicator: AB

~~SECRET~~

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of 5 Sheets

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 Signal Operations Group
 Cipher Key Lists for Converter

No. 1

Hq ABTC Task Force
 Camp Mackall, D. C.
 26 December 1943

Effective 0001 D+1 Day to 2400 D+2 Day

LUG SETTINGS

PIV SETTINGS

	1	2	3	4	5	6
1	X					
2	X					
3		X		X		
4		X				
5		X				
6		X				
7			X			
8			X			
9			X			
10			X			
11			X	X		
12				X		
13				X		
14				X		
15				X		
16				X		
17				X		
18				X		
19				X	X	
20					X	
21					X	
22					X	
23					X	
24					X	
25					X	
26					X	
27						X

	1	2	3	4	5	6
1	A					
2	B					
3	C					
4	D					
5	E					
6	F					
7	G					
8	H					
9	I					
10	J					
11	K					
12	L					
13	M					
14	N					
15	O					
16	P					
17	Q					
18	R					
19	S					
20	T					
21	U					
22	V					
23	X					
24	Y					
25	Z					
26						
27						

TWENTY-SIX LETTER CHECK: SELUP FOXFI VORFY FODAK IOKEM P

System Indicator: AC

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 of 5 Sheets

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Signal Operation Instructions

Cipher Key Lists for Converter M-209

No. 1

Hq ABTC Task Force
Camp Mackall, N. C.
28 December 1945

Effective 0001 D+3 Day to 2400 D+4 Day

LUG SETTINGS

PIH SETTINGS

	1	2	3	4	5	6
1	X					
2		Y			X	
3		X				
4		X				
5		X				
6		X				
7		X				
8		X	X			
9			X			
10			X			
11				X		
12				X		
13				X		
14				X		
15				X		
16				X	X	
17				X	X	
18				X	X	
19				X	X	
20				X	X	
21				X	X	
22				X	X	
23				X	X	
24				X	X	
25				X	X	
26				X	X	X
27				X	X	X

	1	2	3	4	5	6
1	A	S	A	A	A	A
2	S	S	S	S	S	S
3	U	U	U	U	U	U
4	E	E	E	E	E	E
5	H	H	H	H	H	H
6	H	H	H	H	H	H
7	H	H	H	H	H	H
8	H	H	H	H	H	H
9	H	H	H	H	H	H
10	H	H	H	H	H	H
11	N	N	N	N	N	N
12	L	L	L	L	L	L
13	L	L	L	L	L	L
14	L	L	L	L	L	L
15	O	O	O	O	O	O
16	O	O	O	O	O	O
17	O	O	O	O	O	O
18	O	O	O	O	O	O
19	O	O	O	O	O	O
20	O	O	O	O	O	O
21	U	U	U	U	U	U
22	V	V	V	V	V	V
23	V	V	V	V	V	V
24	V	V	V	V	V	V
25	V	V	V	V	V	V
26	V	V	V	V	V	V
27	V	V	V	V	V	V

TWENTY-SIX LETTER CHECK: PKFQQ ASHEW UCCIK JOREY IZDPK O

System Indicator: AD

~~SECRET~~

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of 5 Sheets

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Signal Operation Instructions

Cipher Key Lists for Converter M-209

No. 1

Hq ABTC Task Force
Camp Mackall, W. C.
26 December 1945

Effective 0001 D+5 Day to 2400 D+6 Day

LUG SETTINGS

PIN SETTINGS

	1	2	3	4	5	6
1	X			X		
2	X					
3	X					
4	X					
5	X					
6	X	X				
7		X				
8		X				
9			X			
10				X		
11				X		
12				X		
13				X		
14				X		
15				X		
16				X		
17				X		
18				X		
19				X		
20				X		
21				X		
22				X		
23				X		
24				X		
25				X		
26				X		X
27						X

	1	2	3	4	5	6
1	A	B	C	D	E	F
2	G	H	I	J	K	L
3	M	N	O	P	Q	R
4	S	T	U	V	W	X
5	Y	Z	A	B	C	D
6	E	F	G	H	I	J
7	K	L	M	N	O	P
8	Q	R	S	T	U	V
9	W	X	Y	Z	A	B
10	C	D	E	F	G	H
11	I	J	K	L	M	N
12	O	P	Q	R	S	T
13	U	V	W	X	Y	Z
14	A	B	C	D	E	F
15	G	H	I	J	K	L
16	M	N	O	P	Q	R
17	S	T	U	V	W	X
18	Y	Z	A	B	C	D
19	E	F	G	H	I	J
20	K	L	M	N	O	P
21	Q	R	S	T	U	V
22	W	X	Y	Z	A	B
23	C	D	E	F	G	H
24	I	J	K	L	M	N
25	O	P	Q	R	S	T
26	U	V	W	X	Y	Z
27	A	B	C	D	E	F

TWENTY-SIX LETTER CHECK: BQJUT HXQDP LOWPY HDBYK SIAFO R

System Indicator: AE

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Item 9-1

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OPERATION INSTRUCTIONS
CODE NAMES
1
UNCLASSIFIED
EFFECTIVE 0001

Hq ABTC Task Force
Camp Mackall, N. C.
26 December 1943

1. The following code names will be used during the effective period of this SCI.
2. This code will not be attached to orders nor will be carried beyond the confines of the units OP's in the departure area.
3. All orders, messages, and letters written during the planning stage prior to D day will designate the following facilities and locations by code names only.

GEOGRAPHICAL LOCATIONS

CODE

Aberdeen	Lowell
Aberdeen Creek	Medford
Aberdeen & Rockfish R.R.	Madison
Addor	Malden
Anson Co.	New Bedford
Antioch	Racine
Arabis	Pueblo
Ashley Hgts.	Wacon
Beaver Creek	Davenport
Bethel	Richmond
Bethlehem	Rockford
Black Creek	Louisville
Blewett Falls	New Britain
Budgers Creek	Fort Worth
Buffalo Creek	Detroit
Buffalo Springs	Teoria
Cameron	Amarillo
Camp Mackall	Newton
Camp Mackall Landing Field	Norfolk
Candor	Asheville
Carthage	Albany
Chandler Pond	Berkley
Cheek Creek	Fresno
Cheraw	Schreveport
Coal Spring	St. Louis
Cognac	Salt Lake City
Grains Creek	Duluth
Deep Creek	Miami
Derby	Camden
Drowning Creek	Fort Wayne
Dundarrach	Providence
Eagle Springs	Atlanta
Elberta	Atlantic City
Ellerbe	Minneapolis
Emery	Birmingham
Five Point	Patterson
Flat Creek	Lincoln
Ft. Dragg	Long Beach
Gibson Pond	San Diego
Gold Hill	Quincy

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SIGNATURE OPERATION INSTRUCTIONS
CODE NAMES

Hq AETC-Task Force
Camp Mackall, N.C.
26 December 1943

GEOGRAPHICAL LOCATIONS

EFFECTIVE 1
0001

Hamlet	San Francisco
Hards Creek	Dayton
Hill Crest	Augusta
Hodgins Pond	Reading
Hoffman	New York
Hoke Co.	Mt. Vernon
Horse Creek	Memphis
Jackson	Sacramento
Jackson Creek	Flint
Jackson Springs	Canton
James Creek	Grand Rapids
Jonesboro	Arlington
Juniper Creek	Fall River
Lake View	Baltimore
Laurinburg	Santa Monica
Laurinburg & Southern R.R.	Rochester
Ledbetter	New Orleans
Lentzon	Mobile
Lilly	Schenectady
Longwood Park	San Antonio
Manley	Columbia
Marston	Oakland
Maxton Air Base	Seattle
McCall	Sioux City
McCaskill Pond	Beaumont
McFarland	Pasadena
McKinney Lake	New Rochelle
McLeod	Milwaukee
Mill Creek	Denver
Monroe	St. Paul
Montrose	Pawtucket
Moore Central R.R.	Dallas
Mountain Creek	Gary
Mt. Pleasant	Little Rock
Naked Creek	Galveston
Nashville	St. Joseph
Neeks Creek	Durham
Niagara	Corpus Christi
Nicholson Creek	Pittsburgh
Norfolk Southern R.R.	Chicago
Norman	Brockton
Peedee River	Montgomery
Tekin	Bridgeport
Pine Bluff	Lancaster
Pine Hill	Passaic
Pinhurst	Charlotte
Plain View	Cambridge
Purcell	Roanoke
Quethifile	Omaha
Raeferd	Phoenix
Red Springs	Scranton
Richland Creek	Dearborn
Richmond Co.	Newark
Rittle River	Evanson
Roberdell	New Haven
Robeson Co.	Portland
Rockingham	San Jose
Rockfish	Los Angeles
Roseland	Wilmington
Rt. 1 U.S.	Sanford
Rt. 2 State	

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SIG OPERATING INSTRUCTIONS

NO.

ABTC Task Force
Camp Mackall, N. C.
6 December 1943

EFFECTIVE 0001

GEOGRAPHICAL LOCATIONS

CODE

Rt. 15 U.S.	Hoboken
Rt. 154	Houston
Rt. 20	Lansing
Rt. 38	Jersey City
Rt. 71	Lancaster
Rt. 72	Lawrence
Rt. 73	Knoxville
Rt. 74	Huntington
Rt. 77	Kalamazoo
Rt. 78	Jackson
Rt. 79	Indianapolis
Rt. 211	Harrisburg
Rt. 220	Kansas City
Rt. 383	Lakewood
Rt. 501	Holyoke
Rt. 731	Boston
Sanitorium	Lynn
Scotland Co.	Nashville
Seaboard Air Line	Cincinnati
Silver Hill	Saginaw
Sings Creek	Des Moines
Southern Pines	Cleveland
Sundy Run	Glendale
Taylor Town	Bethlehem
Thaggers Pond	Bryonne
Timberland	Philadelphia
Timmonsville	St. Petersburg
Troy	Akron
Vass	Austin
Vine Vista	Chattanooga
Wads Creek	Erie
Wagram	Savannah
Wayside	Fontiac
West End	Binghamton

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SIGNAL OPERATIONS INSTRUCTIONS
 PREPARED PANEL SIGNALS
 NO. 1

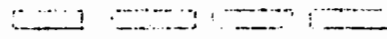
Hq ABTC Task Force
 Camp Mackall, N.C.
 26 December 1945

EFFECTIVE 2001

In order to facilitate Air-Ground communication, the following additional panel signals are prescribed. These are to be used in conjunction with Visual and Sound Signals of this SOI.



Command Post
 Here



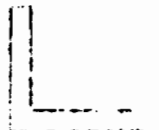
Our lines here



Food & Water
 Needed



Do Not Land
 Here



Ammunition
 Needed



Do Not Land
 Here



Successful
 Here



Friendly Troops



Drop Message
 or Supplies
 Here



Heavy Resistance
 Within 500 yds in
 This Direction.
 Request Air Attack.



Finish or
 Cancel Mission



Heavy Resistance
 1000 yds in this
 direction. Request
 Air Attack.



Wind in this Direction

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SIGNAL OPERATION INSTRUCTIONS

Vehicle Identification Code

NO. 1

Hq ABTC Task Force
Camp Mackall, N. C.
28 December 1943

EFFECTIVE 0001

1. In order to identify vehicles, the following code will be used.
Panel AP-501 will be used whenever available in accordance with C 4 FM 24-5.



A

NOTE

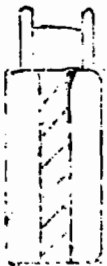
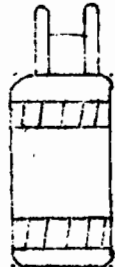
"C" will be used beginning "D" day and will continue to be used until other instructions are issued by Div HQ after notifying Task Force.

D



B

E



C

F



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Signal. Communication Instructions

Radio Frequencies and Call Signs

No. 1

Hq ABTC Task Force
Camp Mackall, W. C.
28 December 1943

Effective 0001

17th AIRBORNE DIVISION

Call Signs:	7A09	8GH2	9MWS	3WL5	F661	J299	OJ21
	S237	VZ95	ZF86	1MA3	3UF2	7CV2	8HE3
	9FW7	BZ99	FB19	JD05	OS22	SB12	W114
	ZN86	LNW1	8WF3	7FW7	8EZ2	9PD1	CB17
	FD14	JH28	OW11	SD12	W142	ZQ55	LEA3
	5ZF7	8VU6	7YQ9	9JZ5	BF31	FT95	IZ07
	NV72	RZ24	VL78	5Q05	LEAL	5CF2	6WU7
	7ZV1	8MD7	BJ22	F311	J243	DA12	S211
	VS21	EB12	1FW3	5RF4	6YV7	8AZ3	9NF5
	B622	F622	J252	CF35	S244	WV15	ZDL1
	1J11	8TF2	W777	Z373	1MA8	5FF4	6QW7
	7WQ4	9GT7	BL27	TV76	IF68	MF99	RL77
	V783	8803	1CA3	5JF1	6SU2	TK11	9HD1
	3L27	F346	IS25	MP22	R323	VD33	ZC14
	1QA4	5JF6	6UJ3	7YLA	8HZ2	EA12	F557
	1113	HQ32	RW13				

Frequencies:	3600	3870	3630	3830	4000	4070	4060	4090
	4110	4150	4160	4160	4250	4260	4290	4310
	4350	4530	4390	4430	4460	4530	4560	4590
	4630	4660	4690	4750	4760	4790	4850	4860
	4890	4930	4960	4990	5050	5060	5090	5100

SCR-533: a. 3885 b. 4035 c. 4030 d. 4280 e. 4597.5
 f. 4840 g. 4030 h. 5205 i. 5327.5 k. 5327.5
 l. 5437.5 m. 5500

SCR-511: A. 3010 B. 3225 C. 3925 D. 4245 E. 5500 F. 5860

SCR-610: 27.2 27.6 28.0 28.4 28.8 29.2 29.6 30.0
 30.4 30.8 31.2 31.6 32.0 32.4 32.8 33.2
 33.6 34.0 34.7 35.1 35.5 35.9 36.3 36.7
 31.1 31.5 31.9 32.3 32.7 33.1 33.5 33.9
 34.3 34.7 35.1 35.5

60th TROOP CARRIER WING

Call Signs:	1VU3	4L35	1VU3	LM50	8OM3	5FW1	1VU4	XU16
(last four	5AM7	42P1	EP45	RE51	1AV6	4MP9	8875	HE55
numerals of	4CP2	8Q13	EP80	ET52	4CP1	5Y21	AE51	P428
airplane	5HE4	MS24	EP47					
numbers)								

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Signal Operation Instructions
Radio Frequencies and Call Signs
 No. 1

Hq ABTC Task Force
 Camp Mackall, N. C.
 26 December 1943

Effective *ppp1*

30th BROOP CARRIER WING (Cont'd)

Frequencies: KC - 5207.5 5760 2216 3095 3027.5
 MC - 134.28 129.78 171.94 152.42 155.36

1st TACTICAL AIR DIVISION

Call Signs: UWS IB9 JUS ZB9 EUS CUS

Frequencies: 4772.5
 VHF Frequencies to be announced later

	Call Sign	Net	Call	Freq	Code	Call
	1st day	2d day	1st day	2d day	Ltr	Word
<u>Task Force Command Net #1</u>			6WU6	Z095	P	3100 Outpost
Task Force	D410	E800			(Q)	3050 Organ
17th AB Div	7Y00	1EAL			(R)	3200 Tiger1
17th AB Div Rr					rate	
Ech	S211	F602			(S)	4930 Tiger Rear
Communications Plane					(T)	2220
<u>Task Force Command Net #2</u>			9JZ5	30F2	U	3060 Obey
Task Force	VS21	J252			(V)	4100 Ocean
17th AB Div	BF31	6WU7			(W)	4600 Tiger 2
17th AB Div Rr					rate	
Ech	ZB12	0F35			(X)	2066 Tiger Rear2
					(Y)	3800

17th AIRBORNE DIVISION CALL NAMES

17th AB Div will use call words beginning with letters "T" and "S".

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 Item 13-1

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Signal Operation Instructions

Telephone & Teletypewriter Directory

No. 1

UNCLASSIFIED

ABTC Task Force
Camp Mackall, N. C.
3 December 1943

Effective 0001

Part 1: Telephone Switching Centrals

<u>UNIT</u>	<u>LOCATION</u>	<u>SWITCHING CENTRAL</u>
Combined Airborne-Troop Carrier Hq	Mackall	India
Hq 60th Troop Carrier Wing	Maxton	Pacific
Hq 438th Troop Carrier Group	Maxton	Persia
Hq 439th Troop Carrier Group	Maxton	China
Hq 439th Troop Carrier Group	Florence	Egypt
Hq 440th Troop Carrier Group	Pope	Malta
Hq 441st Troop Carrier Group	Pope	Europe
Hq 441st Troop Carrier Group	Lumberton	Burma
Hq 17th Airborne Division	Maxton	Pacific
17th Div Representative	Pope	Malta
17th Div Representative	Florence	Egypt
17th Div Representative	Lumberton	Burma

Part 2: Telephone Numbers Combined Airborne-Troop Carrier Hq

Switchboard Name	INDIA		
Director	776		
Ass't Director	776		
Assistant Director	770	CWS Officer	32
Administrative Ass't	760	Engineering	773
G-1	775	F. A. Officer	765
A-2	768	Headquarters Commandant	774
G-2	771	Message Center	772
A-3	764	Ordnance Officer	761
G-3	769	Provost Marshall	774
A-4	763	Quartermaster Officer	761
G-4	763	Signal Officer	765
A-G	762	Surgeon	761
Charge of Quarters	762	Sgt Major	762
Control Room	767	Umpires	766

Part 3: Telephone Numbers 60th Troop Carrier Wing

Switchboard Name	PACIFIC		
Commanding Officer	6		
Executive Officer	5		
Adjutant	7	Motor Pool	14
A-1	1	Radior Officer	10
A-2	2	Radior Room	12
A-3	3	Signal Officer	10

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Signal Operation Instructions

Telephone & Teletypewriter Directory

No. 1

Hq ABTC Task Force
 Camp Mackall, N. C.
 26 December 1943

Effective 0001

Part 3: Telephone Numbers 60th Troop Carrier Wing (Cont'd)

A-4	4	Signal Company	13
BOQ #	15	Statistical Officer	9
BOQ #	15	Surgeon	8
Communications Officer	10		
Message Center	11		

Part 4: Telephone Numbers 17th Airborne Division

Switchboard Name	PACIFIC
Commanding General	306
Ass't Commanding General	305
Chief of Staff	303
CG, Division Arty	322

G-1	301	CWS	310
G-2	302	Engineering Officer	310
G-3	303	Finance	318
G-4	304	Hq Commandant	327
A-G	307	Message Center	311
Bivouac Area	323	Ordnance	325
Bivouac Area	324	Provost Marshall	327
Chaplain	327	Quartermaster	325
Communications Officer	310	Surgeon	325
Loading Point Officer	351	Ration Dump	353
Airborne QM Hq	352	Ammunition Dump	354

Part 5: Telephone Numbers Troop Carrier Groups

Unit	438	439	439	440	441	441
Swbd Name	PERSIA	CHINA	EGYPT	MALTA	EUROPE	BURMA
Commanding O	6	3	6	6	6	6
S-1	1	1	1	1	1	1
S-2	2	2	2	2	2	2
S-3	3	3	3	3	3	3
S-4	4	4	4	4	4	4
Communications	10	10	10	10	10	10
Message Center	11	11	11	11	11	11

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~~UNCLASSIFIED~~
~~UNCLASSIFIED~~
Signal Operating Instructions

Telephone & Teletypewriter Directory

No. 1

Hq ABTC Task Force
Camp Mackall, N. C.
26 December 1943

Effective ~~1/1~~

Part 6: Telephone Numbers Airborne Representatives

Unit Swbd Name	AB Repre- sentative MALTA	AB Repre- sentative EGYPT	AB Repre- sentative BURMA
Commanding Officer	300	300	300
S-1	301	301	301
S-2	302	302	302
S-3	303	303	303
S-4	304	304	304
Message Center	311	311	311

Part 7: Teletypewriter Stations

<u>Organization</u>	<u>Location</u>	<u>Call Sign</u>
Switchboard Operator	PACIFIC	1AA7
Maneuver Headquarters	INDIA	2BS6
Hq, 30th Troop Carrier Wing	PACIFIC	5EQ1
Hq, 438th Troop Carrier Group	PERSIA	7EV2
Hq, 439th Troop Carrier Group	CHINA	8OZ6
Hq, 439th Troop Carrier Group	EGYPT	9RD9
Hq, 440th Troop Carrier Group	MALTA	CK98
Hq, 441st Troop Carrier Group	EUROPE	FW10
Hq, 441st Troop Carrier Group	BURMA	JW15
17th Airborne Infantry Division	PACIFIC	PH87
Airborne Representative At	MALTA	SU68
Airborne Representative At	BURMA	WF32
Airborne Representative At	EGYPT	1BB4

Part 8: Teletypewriter Operating Instructions

1. FM 24-8 Combined Teletypewriter Procedure, March 17, 1943, will be followed for all messages.
2. Not more than five (5) messages should be sent at one time.
3. To call switchboard operator, make a two-second break with break key of T1.
4. Operator answers by typing call sign of switchboard.
5. Calling station types call sign of station wanted.
6. Operator makes connection, starts motor of called printer, and sends bell signal to attract attention of called station.
7. Called station answers by typing own call sign. Calling station proceeds with message using compiled procedure per FM 24-8.

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Signal Operating Instructions

Telephone & Teletypewriter Directory

No. 1

Hq ABTC Task Force
Camp Mackall, N. C.
26 December 1943

Effective 1/1/44

Part 3: Teletypewriter Operating Instructions (Cont'd)

8. Called station may break in on sending station by operating spacing bar of TT several times. Caution: Do not use the break key for this as it will call the switchboard operator in on the circuit.
9. To end transmission calling station operator will make a two-second break with break key. Operator will monitor on line, seeing no traffic he will press motor stop and disconnect the call.

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Item 14-1

Page 4
of 4 Sheets

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~~SECRET~~
SIGNAL OPERATION INSTRUCTIONS
UNCLASSIFIED
COUNTERSIGNS
NO. 15-1

Hq ABTC Task Force
Camp Mackall, W. C.
26 December 1943

EFFECTIVE 0001

1. Countersigns will be received from Regimental, Separate Battalion, and Separate Company Commanders.

2. The countersigns will be used as follows: The guard or outpost will halt the party. The party halted will give the first word of the countersign. The guard will reply with the second word of the countersign. Words will be effective from 1200 to 1200.

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Item 15-1

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of 1 Sheet

~~UNCLASSIFIED~~

SIGNAL OPERATION INSTRUCTIONS

VISUAL, SOUND AND WARNING SIGNALS

NO. 1

Hq ABTC Task Force
Camp Mackall, N. C.
26 December 1943

EFFECTIVE 0001

Sound Signals

Meaning

- | | |
|---|-------------------------------------|
| 1. Repeated long blasts of a whistle, vehicular horn, siren or klaxen; or three equally spaced shots with rifles or pistols; or three short bursts of fire from machine gun or sub-machine gun. | Enemy mechanized units. |
| 2. Repeated short blasts of whistle, vehicular horn, siren or klaxen. | Enemy airplanes. |
| 3. Percussion sounds, such as those produced by bells, triangles, iron rails and empty cartridge cases struck rapidly and continuously. | Gas alarm |
| 4. Repeat long - short blasts of whistle, vehicular horn, siren or klaxen. | Enemy airborne or Parachute troops. |
| 5. Single long blast of whistle, vehicular horn, siren or klaxen. | All clear. |

NOTE: All persons recognizing the alarms will relay them.

Airplane Signals

NOTE: The following signals will be recognized and meanings therefore employed by panel operators only after positive identification of the plane as friendly.

<u>Signals</u>	<u>Meaning</u>
Zoom down and turn 90 degrees while going away and climbing. Rocks wings.	Display identification panels, identify yourself. Understood, message or signal received, yes.
Continue circling	Not understood, repeat, message not received.
Plane makes a series of alternate turns right and left towards indicated threat.	Alert for hostile, mechanized or air attack, then flying towards attacking elements.
Fishtail (use rudder without banking)	Mark Front Lines.

RADIO WARNING

The purpose of all warnings will be, first, to give the alarm; then, to follow with more detailed information.

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UNCLASSIFIED INSTRUCTIONS

VISUAL, SOUND AND WARNING SIGNALS

NO. 1-1

Hq ABTC Task Force
Camp Mackall, N. C.
26 December 1943

EFFECTIVE 0001

AIR WARNINGS

RADIO (C)

Warnings on (C) will be preceded by a series of "Urgents" (C,C,C,)

AME*
AMF
AMH
AWS

RADIOPHONE (VOICE)

Give "Flash" twice, number of planes and direction of approach. Any detailed information of aircraft will follow warning.

(ex.) "Flash Flash three planes west. Three planes west."
"Enemy fighters flying low".

TANK WARNING

TIE*
TIF
TIH
TIS

Give "Flash" twice, number of tanks and call word of likely unit to which attack is directed. Detailed information to follow warning.

(ex.) "Flash, Flash, six tanks Tiger Six tanks Tiger".
"Six enemy medium tanks approaching in column on River Road two miles north of Tiger".

GAS WARNING

GME*
GMF
GMH
GMS

Give "Flash" twice, gas warning and call word of unit under attack, Details to follow warning.

(ex.) "Flash, Flash, (tear) Gas Warning Tripod Gas Warning Tripod".
"Fear gas from airplanes (mortars) (arty)".

*(The last letter of each group indicates direction of attack.)

The "All Clear" signal will be given "AC" (for C) or "All Clear" repeated twice followed by type of warning cleared, which is followed by another "AC" or "All Clear".

(ex.) AC, AC, AME, AC, or "All Clear" Clear, Air Warning East, All Clear".

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~~RESTRICTED~~
SIGNAL OPERATION INSTRUCTIONS
~~RESTRICTED~~
VISUAL, SOUND AND WARNING SIGNALS

NO. 1

Hq ABTC Task Force
Camp Mackall, N. C.
26 December 1943

EFFECTIVE 0001

Smoke Signals

The following meanings will be assigned to smoke signals:

Red -----	Our troops here
Orange -----	Drop supplies here
Green and White -----	Enemy attacks with tanks
Red and Green -----	Enemy 100 yards away in the direction Red to Green
Red and Orange -----	Enemy 300 yards away in the direction Red to Orange
Red and Violet -----	Enemy 500 yards away in the direction Red to Violet
Green -----	To mark front lines

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~~RESTRICTED~~

~~MANEUVER SECRET~~

Signal Operation Instructions

Daylight and Darkness Tables

No. 1

UNCLASSIFIED

Hq. ABTC Task Force
Camp Mackall, N. C.
26 December 1945

Effective 0001

<u>Date</u>	<u>Daylight</u>	<u>Sunrise</u>	<u>Sunset</u>	<u>Darkness</u>
Jan 1	0658	0823	1817	1947
11	0657	0827	1825	1955
21	0656	0830	1833	2003
31	0655	0818	1845	2012
Feb 10	0645	0810	1850	2021
20	0635	0800	1905	2030
Mar 2	0624	0747	1914	2038
12	0610	0734	1922	2047
22	0556	0720	1931	2056
Apr 1	0541	0703	1939	2105
11	0525	0652	1946	2115
21	0509	0640	1954	2125
May 1	0455	0628	2003	2137
11	0441	0618	2011	2148
21	0430	0611	2019	2159
31	0422	0603	2023	2209
Jun 10	0417	0603	2031	2217
20	0417	0604	2035	2222
30	0420	0607	2036	2222
Jul 10	0427	0612	2034	2219
20	0433	0613	2030	2212
30	0445	0625	2025	2201
Aug 9	0457	0632	2014	2148
19	0502	0640	2003	2134
29	0510	0648	2000	2118
Sep 8	0522	0655	1936	2102
18	0537	0702	1932	2046
28	0546	0710	1908	2031
Oct 8	0553	0718	1854	2017
18	0601	0726	1841	2004
28	0609	0735	1839	1954
Nov 7	0618	0744	1819	1945
17	0626	0754	1812	1939
27	0634	0803	1802	1936
Dec 7	0642	0812	1806	1936
17	0649	0820	1808	1939
29	0654	0825	1813	1944

NOTE: These times of daylight and darkness are based on astronomical twilight when the sun is 18° below the horizon. Data is taken from the American Nautical Almanac for 1942 and is computed for Lat 35° N and Long 79°30' W.

~~MANEUVER SECRET~~

Item 17-1

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of 1 Sheet

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Signal Instructions

Moon Phases

No. 1

Hq. ABTC Task Force
Camp Mackall, N. C.
26 December 1943

Effective 1/1/44

Month	1943				1944			
	New Moon	First Quarter	Full Moon	Last Quarter	New Moon	First Quarter	Full Moon	Last Quarter
January	8	13	21	29	25	2	10	18
February	4	11	20	27	23	1	9	17
March	3	13	21	28	24	31	9	17
April	4	12	20	27	23	30	8	15
May	4	12	19	26	22	29	8	15
June	2	10	18	24	20	28	7	15
July	31	10	17	23	20	28	5	13
August	30	8	15	23	19	26	4	10
September	29	7	13	21	17	25	3	9
October	28	6	13	20	17	24	31	8
November	27	4	11	19	15	23	29	7
December	26	4	11	19	13	22	29	7

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Item 18-1

~~UNCLASSIFIED~~
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STANDARD TIME SIGNAL SCHEDULE

NO. 1

Hq ABTC Task Force
Camp Mackall, N.C.
25 December 1943

INSTRUCTIONS 1441

1. Standard Time Radio Broadcasts are made by the Naval Observatory, Washington D.C. on the following schedule. Time shown is Eastern War Time.

<u>Time</u>	<u>Freq. KC</u>
0600 LWT	9425
1200 LWT	9425
1800 LWT	9425
2400 LWT	9425

2. a. These time signals commence five minutes before the hour and the exact time is indicated by a long dash on the hour, the exact time being at the beginning of the dash.
- b. Occasionally the Columbia Broadcasting System network stations broadcast a time signal tone which is cut off two seconds before the beginning of the hour. This cut-off is correct within one or two seconds.
- c. All national chain network programs begin on the quarter, one-half, three-quarter or hourly schedule, correct within five or six seconds.
- d. There are continuous time signals broadcast over station WJZ on 590 KC.

3. Each unit headquarters having a radio receiver capable of receiving these signals will have time signals received and the message center clock corrected to agree thereto, twice daily. Message Centers not served by a radio station capable of furnishing the above service will obtain the correct time twice daily, as directed by the unit communications officer, from the Division Message Center, or another unit.

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SIGNAL OPERATIONS INSTRUCTIONS

Prearranged Message Code for Emergency Parachute Resupply

NO. 1

Hq ABTC Task Force
Camp Mackall, N. C.
28 December 1943

EFFECTIVE 0001

1. The following code is prescribed for use by isolated units where the only means of resupply is by parachute. This code will not be used for normal supply messages inasmuch as the supplies are prepacked for parachute resupply and cannot be utilized in any other way.

<u>Message</u>	<u>Code Name</u>
One unit of 75 MI Ammunition (Contains 8 M54; 3 AP; 1 Smoke - Total 12 rds.)	Dragon
One unit of 81 MI Ammunition (Contains 24 rds HE, light.)	Gorilla
One unit of 60 MI Ammunition (Contains 40 rds HE; 8 smoke - Total 48 rds.)	Lion
One unit of Machine Gun & Small Arms Ammunition (Contains a. 10 belts (250 rds ea.) MG AMM. b. 20 magazines SIG Amm. c. 40 magazines Carbine Amm. d. 3 Bandoliers Cal. 30 e. 40 magazines Cal. 30 for BAR)	Fox
One unit AT Rocket Amm. (Contains 1 box AT Amm.)	Bear
One unit 37 MI AT Amm. (Contains 16 AP; 4 HE - (Total 20 rds.)	Wolf.
One unit Rations (Contains 40 C rations <u>or</u> 48 K rations)	Wildcat
One unit Water (Contains 15 gals. water)	Leopard

2. In order to use this code state the number of units desired followed by map coordinates of drop area (given in any of map coordinate codes prescribed, see Item M 6-1) and then followed by means used to identify exact drop area (see Prearranged Panel Code Item M 11-1, Visual and Sound Signals Item 18-1 or any improvised means such as bonfire, flashlights, etc.)

Ex: In order to encode the following message on D day:

Drop five units of 81 MI Amm. at point 349.7 - 273.8. Exact area to be marked by smoke (Item M 18-1 prescribes orange smoke.)

Five Gorilla XMBZV NEBLE BJTUM Smoke.

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Item 20-1

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina WEH/jmm

11 January 1944

SUBJECT: Report on Communications for Umpires
(Part IV to Signal Section Report)

TO Commanding General, Maneuver Headquarters

The communications for the umpires in Cutthroat Operation consisted of an unusually large "spider web" wire network and Radio Communication with SCR-610 and SCR-284 Radios mounted in 1/4-ton 4 x 4 trucks.

Radio Communications:

Radio equipment, operators and vehicles in which radio equipment was mounted for this operation were furnished by the 13th Airborne Division as shown on the attached photostatic copy published by this Headquarters. Lieutenants Paxton and Bard from the 13th Airborne Division Signal Company were also assigned to Maneuver Headquarters. They made most of the physical arrangements for assignment of radios, vehicles and radio operators to the Umpire Officers. Assignments were made and published on mimeographed sheets, a copy of which is attached to this report.

A radio repair shop was established in Building 2201 with four radio repairmen. Two experienced radio sergeants were used as trouble shooters. They were furnished a jeep each with a spare radio. When radio trouble was reported, they went to the location and if the sergeant could not put the faulty set into operation with first echelon maintenance, it was replaced by the spare. This personnel and equipment was furnished by the 1st Airborne Infantry Brigade and the 13th Airborne Division.

It had been reported that there was no control of the radio vehicles in the motor pool during the last maneuver. To overcome this, a six-foot barbed wire fence was placed around the motor pool leaving only one entrance or exit which gave the dispatcher greater control and also helped prevent the removal of radio equipment. This also enabled this Headquarters to freeze transportation before each OPX and before the maneuver so that all radios could be checked and road-tested and be in operation at the start of each operation.

Two hours were allowed for instruction of Umpire Officers (radio operators also attended) in the use of the radio and wire communication. The bare essentials of radio voice procedure were taught to them and with the aid of large charts, the Umpire Communications Officer instructed them in the practical working procedure of Communications System so that each officer knew how to contact other Umpires either by name, or by the unit which they umpired, on radio and/or telephone.

In most instances, communications by radio were established first by the operator and then carried on by the Umpire Officers.

Report on Communications for Umpires (Cont'd)
(Part IV to Signal Section Report)

Wire Communications:

See the attached copy of the Line Route Map. Fifty-seven locations were picked for telephone stations. The Umpire Communications Officer consulted the Chief of Staff and G-3 of Maneuver Headquarters for their approval of his chosen locations. A few of the stations were changed, but, in general, the plan as shown on the lithographed overlay of the Line Route Map remained intact.

Since most of the action took place in and around Camp Mackall, it was decided to place the switchboard and the Wire Construction Company's bivouac in barracks at the camp. All men were given hot meals until the five days of the actual maneuver during which time "K" and "C" Rations were furnished to the telephone orderlies and more distant maintenance crews.

Most of the lines were overhead construction, using telephone poles and the abundant pine trees in this vicinity. The lines were of such distance that they had to be loaded and carefully balanced with load coils, C-114; 200 were used in all. Terminal strips were placed at each telephone station indicated on the Line Route Map. Phones were only attached when an umpire was actually using the phone except for the Chief Umpires, from Regimental Umpire up, whose phones were attached all the time that they were in the vicinity. The Switchboard was made up of three BD-71's in parallel. A log was kept by the Switchboard Operators on the Chief Umpires, from Regimental Umpires up, as to their whereabouts and at which phone they could be reached at any stated time.

There were eleven main circuits, each one having from three to eight phones in parallel, but never more than two phones connected at one time. Maintenance crews were placed at the end of each circuit so that by checking in with central periodically, they could find trouble in a minimum of time.

The Umpire Communications Officer submitted a plan to the Company Commander of the Wire Construction Company for the relief of telephone orderlies stating which orderlies and wire circuits could be spared first. The Maneuver was ended about 1030 9 January 1944. The Signal Company came here on orders which called for their departure on or about 10 January 1944. This was foreseen in time to have their length of duty here extended to on or about 17 January 1944. Even with this extension of time, the wire company will be exceedingly busy if they can pick up the 375 miles of wire and service it properly to return it to the places from which it was drawn.

Remarks:

Two Command Post Exercises were held prior to the Maneuver. At least one is necessary for both radio and wire communication. The first C&X that was held for this operation brought out many defects and though the communications did not function too smoothly at that time, it afforded us the opportunity to correct these difficulties for the Maneuver. Communications during the Maneuver were excellent both by radio and telephone. The few failures were easily corrected and they were negligible in

Report on Communications for Umpires (Cont'd)
(Part IV to Signal Section Report)

comparison to the entire communications system. Almost all the information that came back to Umpire and to Maneuver Headquarters came through the umpire radio network, or via the umpire telephone system.

Recommendations:

In general, it is believed that about the same pattern should be followed in establishing communications for umpires as was used in this operation, with this one exception -- if possible, the umpires, radio operators, radio equipment and vehicles should all be obtained from the same respective unit so that operators from one Regiment will not have to use radio equipment or be assigned to Umpire Officers from another Regiment.

s/ William E. Hornby
t/ WILLIAM E. HORNBY
Major, Infantry
Umpire Communications O

3 Incls.

- Incl. 1 Photostatic Copy of Procurement
of Radio Equipment and Personnel
- Incl. 2 Assignment of Radio Equipment,
Personnel and Vehicles to Umpire Officers
- Incl. 3 Line Route Map

UMPIRE REQUIREMENTS - AIRBORNE T/O MANEUVER

PERSONNEL - COMMUNICATIONS - TRANSPORTATION

Unit	Field Officers (Battery)			NCOs			Chaufeurs			Radio Ops			ARTY FIRE MARKING TEAMS			SUMMARY OF EQUIPMENT
	Co. Officers	1st Lt	2nd Lt	Co. Officers	1st Lt	2nd Lt	Chaufeurs	1st Lt	2nd Lt	Radio Ops	1st Lt	2nd Lt	Chaufeurs	1st Lt	2nd Lt	
17th Avn Div Hqs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3 - 2 1/2 ton trucks
134th Avn Engr Bn																2 - Tents, large (Hqs)
155th Avn AA Bn																2 - Maint equip (Radio) ME1B
Arty Supervisor																1 - Frequency Meter, SCR 211
Hq & Hq Btry 7B Div Arty																2 - Tool Equip, TE 41
400th Hwht FA Bn																
680th Glider FA Bn																
681st Glider FA Bn																
193rd Glider Inf Reg																
195th Regt'l Hqs																
195th 1st Bn																
195th 2nd Bn																
197th Glider Inf Regt																
197th Regt'l Hqs																
197th 1st Bn																
197th 2nd Bn																
517th Front Int																
517th Regt'l Hqs																
517th 1st Bn																
517th 2nd Bn																
517th 3rd Bn																
Forfinder group (Front)																
SSS Group (Front)																
541st (Bn-Sup)																
1 Btry FA (Front)																
RED FORCE																
CT 15th Avn Div																
Hqs CT (88th Gln. Reg)																
88th 1st Bn																
88th 2nd Bn																
88th 3rd Bn (3rd Bn-attached)																
AA Bn attached																
215th Glider FA Bn																
Lt Tank Co attached																
Chief Umpire																
Chief Blue umpire																
Chief Red umpire																
Air Corps (Transportation)																
Medical umpire teams																
Supernumeraries																
Spare radio sets, mounted in vans																
Arty fire team totals																
GRAND TOTAL	24	107	105	68	146	70	50	13	40	22	8	8	16	16	8	8

ADDITIONAL COMM. EQUIP
 3 - 2 1/2 ton trucks
 2 - Tents, large (Hqs)
 2 - Maint equip (Radio) ME1B
 1 - Frequency Meter, SCR 211
 2 - Tool Equip, TE 41

BATTERIES AS FOLLOWS:
 50 BA - 27
 50 BA - 43
 300 BA - 34
 300 BA - 40
 150 BA - 41

ADDITIONAL COMM. PERSONNEL NEEDED:
 3 Radio Techns, SLR 610
 2 Basics
 2 Officers

OFFICERS ENLISTED	
Field Officers	24
Co Officers (Battery)	107
Air Corps	18
TOTAL	149

NCUs	106
Flag Unables	68
Chaufeurs	46
Radio operators	62
TOTAL	331

of 100
 copies

AIRBORNE PARAJUMPERS

SCR 610 NEWS

24 December 1943

UNIT	FRFQ.	A	B	CALL SIGN	GT	FACILITY FROM UNIT	OFFICERS	OPERATOR	VEHICLE SER. NO.
Blue Umpire	(193 Reg Hqs	(28.4	30.4	Blue 8		326th G11	Lt Col Bryant	Austin	Foley 2080940
	(1st Bn	(28.4	30.4	Blue 9		326th G11	1st Maj Bernard	Gilzow	Cabard 2011071
3 Sets	(2nd Bn	(28.4	30.4	Blue 10		326th G11	1st Maj Spotswood	Barrett	Rodgers 20110517
	(194 Reg Hqs	(28.8	30.4	Blue 11		(153 AA	1st Maj Varing	Chapman	Pgan 2079383
3 Sets	(1st Bn	(28.8	30.4	Blue 12		(153 AA	Capt Scully	Burger	Gilmore 20128826
	(2nd Bn	(28.8	30.4	Blue 13		(153 AA	Capt Fringer	Bollinger	Lewandowski 20103501
	(517 Reg Hqs	(29.2	30.4	Blue 14		(513 Probt	1st Maj Anderson	Costollo	Reed 20103880
	(1st Bn	(29.2	30.4	Blue 15		(513 Probt	Capt Kingman	Bernhoff	Poe 2013 878
5 Sets	(2nd Bn	(29.2	30.4	Blue 16		(513 Probt	Capt Missley	Ferced	Fileno 20110993
	(3rd Bn	(29.2	30.4	Blue 17		(513 Probt	Capt Bous	Riddicombe	Connors 20128677
	(4th Bn (541st)	(29.2	30.4	Blue 18		(513 Probt	Capt McLellan	Badartsher	Fasten 20110910
Arty Supr	Arty Supr	32.4	31.2	Arty 0		Div Arty	1st Maj Oliver	Pruitt	Price 20404093
	Hq & Hq 3try						Capt Hawthorne	Wlsby	Valentine 20383209
	17th AS Div / Arty	32.4	31.2	Arty 1		Div Arty			
	460 Probt PA Bn	32.4	31.2	Arty 2		Div Arty	Capt Hiller	Carlson	Raribeau 2053014
	680th G11 PA Bn	32.4	31.2	Arty 3		Div Arty	Capt Krenl	Hyde	Wlanders 20129583
	681st G11 PA Bn	32.4	31.2	Arty 4		Div Arty	Capt Kallaber	Sturgill	Stranger 20378998
	465th GA Bn (Red)	32.4	31.2	Arty 5		Div Arty	Capt Huff	Levato	Goodman 20129267
14 Sets	(Fire Marking Team #1	32.4	31.2	Arty 6		Div Arty	Lt Fuernert	Howard	Stone 20387612
	(Fire Marking Team #2	32.4	31.2	Arty 7		Div Arty	Lt Fehler	Fwerett	Collins 2038538
	(Fire Marking Team #3	32.4	31.2	Arty 8		Div Arty	Lt Fuson	Fedor	Jones 20313168
680th	(Fire Marking Team #4	32.4	31.2	Arty 9		Div Arty	Lt McCollum	Kerber	Dahl 20397848
	(Fire Marking Team #5	32.4	31.2	Arty 10		Div Arty	Lt Hughes	Andenzi	Jurgens 20387648
681st	(Fire Marking Team #6	32.4	31.2	Arty 11		Div Arty	Lt Farnorio	Schneider	Lewandowski 20388175
	(Fire Marking Team #7	32.4	31.2	Arty 12		Div Arty	Lt Smith	Keith	Post 20370858
465th	(Fire Marking Team #8	32.4	31.2	Arty 13		Div Arty	Lt Woods	Blum	Anderson 20388415

AIRBORNE MANEUVERS
5 Jan 44 to 11 Jan. 44

24 December 1943

SCR 284 NETS

NET	UNIT	FREQ.		CALL SIGN	VOICE	CW	EQUIPMENT FROM UNIT	UMPIRE	OPERATOR	VEHICLE SER. NO.
		A	B							
Chief Umpire	Dir Hqs	4080	3840	Director	Dir		129 Engr	Lt Col Graves	Pernotto Sutter	20202774 Mershham
	Chief Umpire	4080	3840	Chief	Chf		129 Engr	Lt Col Graves	Perry	20314130
	Med. Clearing Station	4080	3840	Clear	Clr		222 Med	Capt Kennett	Ziemer	33786599
	Chief Blue Ump	4080	3840	Blue	Blu		153 AA	Lt Col Simenson	Herald	20129961
	Chief Red Ump	4080	3840	Red	Red		Div Arty	Lt Col Bettinger	Albritton	20379351
	17 AB Div Hqs Ump	4080	3840	Division	Div		153 AA	Maj Raber	Shanes	2078981
	Arty Supr.	4080	3840	Arty	Art		Div Arty	Maj Cliver	Carr	Stillwington 20379306

Chief Blue Umpire	Chief Blue Umpire	4450	4900	Blue 1	Blue 1		153 AA	Lt Col Simenson	Langkamp	20151479 Crossman
	*155 AB Bn	4450	4900	Blue 2	Blue 2		153 AA	Capt Beeman	Elkin	20101014
	*193 Gli Inf	4450	4900	Blue 3	Blue 3		326 Gli	Lt Col Bryant	Koehler	Mosley 20386038
	*194 Gli Inf	4450	4900	Blue 4	Blue 4		326 Gli	Maj Waring	Colter	Sorrell 20404138
	*517 Procht Inf	4450	4900	Blue 5	Blue 5		513 Procht	Maj Anderson	Cofer	Nagorka 20189085
	139 AB Engr Bn	4450	4900	Blue 7	Blue 7		129 Engr	Lt Simmons	Buckrios	Callivan 2037926 Carter
	Chief Red Umpire	Chief Red Umpire	4700	3880	Red 1	Red 1		Div Arty	Lt Col Bettinger	Wolfe
4 Sets	*AA AB Btry (444)	4700	3880	Red 2	Red 2		153 AA	Capt Twiggs	Davis	Kane 20106745
	*88th Gli Inf Regt	4700	3880	Red 3	Red 3		326 Gli	Maj Dobson	Craig	Farlowe 20136357
	129 Engr Bn Co "C"	4700	3880	Red 4	Red 4		129 Engr	Lt Darlington	Holvey	Brown 20105876
	Lt. Tank Co.	4700	3880					Lt Legate		

AIRBORNE MANEUVERS

24 December 1943

SCR 610 NETS

NET	UNIT	FREQ.		CALL SIGN	EQUIPMENT	OPERATOR	VEHICLE
		A	B				
Red Umpire 4 SETS	83th GlI Inf	28.0	27.6	Red 5	326th GlI Inf	Maj Dobson	Ritecz Schuster 20111090
	1st Bn	28.0	27.6	Red 6	326th GlI Inf	Maj Kneese	Klire Cochill 2080983
	2nd Bn	28.0	27.6	Red 7	326th GlI Inf	Maj Martin	Dabbs Keller 2080167
	3rd Bn (326th)	28.0	27.6	Red 8	326th GlI Inf	Maj Wallace	Gibson Wickham 20112508
Clearing Station 7 SETS	Umpire #1	31.6	30.0	Medical 1	222nd Med	Maj Rauch	Shelby Eisenberger 20310436
	Umpire #2	31.6	30.0	Medical 2	222nd Med	Capt Sorenson	Combrat Palladino 20124783
	Umpire #3	31.6	30.0	Medical 3	222nd Med	Capt Brinson	Rudor Green 20160158
	Umpire #4	31.6	30.0	Medical 4	222nd Med	Capt Slotka	Trbovich Kogelman 20129414
	Umpire #5	31.6	30.0	Medical 5	222nd Med	Lt Black	Migdonothum Regoli 2038056
	Umpire #6	31.6	30.0	Medical 6	222nd Med	Lt Hollander	Setlin Repermaid 20196864
	Umpire #7	31.6	30.0	Medical 7	222nd Med	Lt Coccolini	Gottgingin Britchard 2038481
10 SETS	Spare				153rd Av. Bn		Rosenstein Townsend Burrows Frank Innat Lee Kocham Samson Perez Winters 20302292
1 Set	Spare				129 Engr		Zolman Lanctot Racki Johnson
4 Operators	Spare						

*NOTE: These vehicles equipped to carry four (4) men.



LINE ROUTE MAP

UMPIRE TELEPHONE CIRCUITS

OVERLAY -- MANEUVER MEMO #3

MAPS: CANDOR, VASS, JACKSON SPRINGS,
SOUTHERN PINES QUAD. (N. CAROLINA)
SCALE 1/62,500

★ Chief Umpire
† & Director Hq.

JAN 1949
505,16

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

11 January 1944

SUBJECT: Report of Maneuver Surgeons.

TO: Director, Combined Airborne-Troop Carrier Maneuver, 5 Jan 44

1. Administrative Medical Installations.

a. Ground Force Installations. - Administrative medical installations were provided as shown on the Plan of Medical Evacuation, Annex #1. On the night of "invasion" activity, seventeen (17) medical officers were assigned to cover fourteen (14) glider and parachute landing zones. Each medical officer was equipped with one 1/4-ton truck and driver, and with parachute first aid kits. Seven of these medical officers were assigned as medical umpires equipped with SCR-610 radios in contact with each other and with a central control station at Maneuver Headquarters. At the central control station five medical officers who were well acquainted with the maneuver area were available for dispatch on emergency crashes out of the assigned landing zones. The central control station was informed of the progress of the flights by the wing surgeon. The immediate reporting of crashes was provided for by (1) commercial phone, operators on all long distance phones were informed of the central control emergency phone numbers; (2) the state police radio net; (3) the chief umpire radio net; (4) the OCD telephone net; and (5) all persons in the area were instructed to report all red flares by whatever method was available.

The 38th Squadron dispensary was set up as an administrative dispensary for the maneuver personnel during the entire problem. The 560th Ambulance Company was assigned to the maneuver and contributed the use of thirty ambulances with driver, orderly, and complete equipment. The ambulances were distributed as shown in Annex #1 on the night of invasion activity. During the ground action two ambulance shuttles were set up at umpire phones; five ambulances were stationed at Aberdeen and five at the 38th Squadron Dispensary. During the period 160008 January 1944 to 140009 January 1944 twenty-two ambulances were on constant duty in the maneuver area evacuating exposure patients. The 541st Parachute Infantry Dispensary was used as an administrative dispensary for Maneuver Headquarters personnel.

b. Troop Carrier Installations. -

1. The medical detachments of the Troop Carrier Squadrons were responsible for the emergency medical care of airborne personnel at the four departure bases after they were packed for transportation by air. So far as is known this procedure functioned satisfactorily.

2. The 60th Wing Surgeon had a workable plan for ambulance coverage of glider and parachute runs. Roving ambulance groups of four ambulances, controlled by radio trucks, were stationed at selected points on the runs between army air bases so that all intervening territory was adequately covered.

3. The undersigned, accompanied by the air medical umpire and wing surgeon, personally visited the air bases at Florence, Pumber, Wilmington, and Goldsboro for the purpose of conferring with the station hospital surgeons and acquainting them with the maneuver plan.

4. The one casualty in a glider accident on one of these runs was satisfactorily taken care of and hospitalized at Bleuthenthal Field.

5. The 1st Platoon of the 224th Medical Company was not brought in until 1330 on D day. It is felt that actually this is not a large enough medical unit and that medical personnel would be needed much earlier.

6. Only three simulated patients were evacuated by air. This is all that were available for air evacuation at the time flying was suspended due to weather.

2. Casualties.

a. Actual Casualties Evacuated Administratively.

(1) Injuries incurred during parachute jump on morning of 6 January 1944 at PDZ #1.

2 - Fracture, ankle
2 - Fracture, leg
2 - Contusion, back and hip

Total - 6

(2) Injuries incurred during parachute jump on afternoon of 6 January 1944 at Mackall Airport.

1 - Contusion, back
1 - Concussion, moderate

Total - 2

(3) Injuries incurred during glider and parachute landing on night of 6 January 1944.

(a) Air Corps personnel

1 - Dislocation, ankle (glider pilot)
1 - Laceration, face (glider Pilot)

Total - 2

(b) Glider passengers

1 - Contusion, nose
1 - Laceration, lip
1 - Concussion, mild
1 - Fracture, jaw

Total - 4

(c) Parachutists

1 - Sprain, back
7 - Sprain, ankle
1 - Sprain, shoulder
7 - Sprain, knee
3 - Sprain, hip
1 - Dislocation, shoulder
3 - Concussion, mild
1 - Contusion, chest
3 - Contusion, leg
2 - Contusion, foot
1 - Contusion, testical
1 - Contusion, back
1 - Laceration, face
5 - Fracture, leg
1 - Fracture skull (resulting in death)

Total - 38

(4) Injuries incurred during ground action of airborne troops

4 - Sprain, knee
4 - Sprain, ankle
1 - Contusion, face
1 - Contusion, shoulder
1 - Contusion, Thorax
3 - Contusion, abdomen
4 - Contusion, hip
1 - Contusion, hand
2 - Contusion, leg
3 - Contusion, foot
1 - Laceration, scalp
1 - Concussion, mild
1 - Gun shot wound (shell fragments in abdominal wall, chest and arm)
2 - Fracture, leg
1 - Fracture, arm
2 - Fracture, foot
1 - Fracture, spine
1 - Fracture, rib
1 - Fracture, skull, in critical condition
1 - Fracture, skull, resulting in death

Total - 36

- (5) Illness due to inclement weather on 8 and 9 January 1944.
admissions to Station Hospital to 240009 Jan 44.

160 - Exposure, fatigue, and mild masopharyngitis
Total- 160

- (6) Injuries incurred during air landings and (two) forced landings, and loading by air corps personnel

1 - Fracture, skull, resulting in death
(glider maintenance crew-man, from fall off truck)

Total - 1

(7) Summary of Injuries.

Type	Deaths	Critical	Serious	Minor	Total
Demonstration parachute jumps	0	0	4	4	8
Glider landings	0	0	1	5	6
Parachute landings	1	0	5	32	38
Ground action, airborne	1	1	7	27	36
Air loading and flights	1	0	0	0	1
Exposure	0	0	0	160	160
Total	3	1	17	228	249

On the basis of approximate figures, 0.3% of glider passengers were injured, 0.8% of glider pilots were injured, and 1.5% of parachutists were injured.

b. Simulated Casualties. - During the entire maneuver approximately 750 officers and men were tagged as simulated casualties; of these about 220 were marked to be evacuated by air. Of the 220 simulated casualties which should have been evacuated by air, only 3 were actually loaded on planes before all planes were grounded by inclement weather. About 20 were evacuated to the clearing station at the airhead. It was demonstrated that the platoons of the airborne medical company have neither the transportation nor communication facilities necessary for the smooth and rapid evacuation of casualties. In the loading plan of the 17th Airborne Division, the 1st Platoon of the medical company was not landed in the maneuver area until the 12th hour of the maneuver and was not prepared for evacuation until the 14th hour. Some simulated casualties were available for evacuation by the 8th hour and many were available at the 12th hour. By D+1 many of the battalion aid stations had not yet received word on the location of the clearing station. Because of the rapid movement of units throughout the maneuver, the Division Surgeon was never fully informed of their location in spite of unceasing effort on his part. If the tagged casualties had been actual battle injuries, there would have been 200 needless deaths due to lack of medical care. It was noticeable to many observers that the standard ground force plan of medical evacuation will not function in an airborne operation. It is believed that it could be made to function with more adequate transportation and with a minimum amount of radio equipment.

3. Sanitation.

Sanitary inspections were made throughout the maneuver period, both of the units bivouacked at Maxton and of the troops actively maneuvering in the Mackall area.

In general, sanitary installations were satisfactory, though some carelessness in the proper closure of waste-disposal pits and trenches was noted. Considerable careless disposal of tin cans was noted.

Water supply systems were studied intensively, many tests for residual chlorine being made on the water being used by the troops in the field. The Blue Forces (194th Glider Inf) relied upon chlorination with halazone tablets by the individual soldier of locally obtained water. In general, good water discipline was here observed, although there were a few individual exceptions. The Red Forces (88th Glider Inf) relied upon distribution of water by motor transport in cans. No traces of chlorine were found in water being used by the troops, whose supply was therefore unprotected against contamination. No provision was made for chlorination of water by individual units nor were any supplies for chlorination or testing found to have been issued. The lack of flexibility of this system would appear to constitute a grave handicap in mobile warfare.

4. Recommendations.

a. It is apparent that one medical platoon of an airborne medical company acting as a clearing station is not equipped to carry on both its divisional functions and the additional duties of an airhead clearing station.

Provision must be made for a medical installation at the airhead to accomplish the following duties:

- (1) Evacuate patients from the treatment stations of division medical service to air evacuation transport planes.
- (2) Provide medical care for operational personnel at the airheads. A flight surgeon should be available to care for special air crew personnel.
- (3) Provide medical care for casualties incurred during air landings and take-offs.
- (4) Act as a "holding" station and triage for personnel awaiting air evacuation.

b. The airborne medical company has neither the personnel nor equipment to provide medical care and evacuation for the probable casualties in an airborne operation. The divisional medical services, to function adequately, must be strengthened in personnel and in transportation.

c. The surgeon of an airborne division should be in radio communication with his unit surgeons. Radio equipment should be assigned to medical units.

d. The T/E of an airborne division should be amended to include an initial pool of litters, blankets, and splints, since it is impractical to continue normal equipment exchange through the air transport phase of evacuation.

e. Continued instruction in the use of night vision aids and careful selection of both power and glider pilots participating in night airborne operations is indicated.

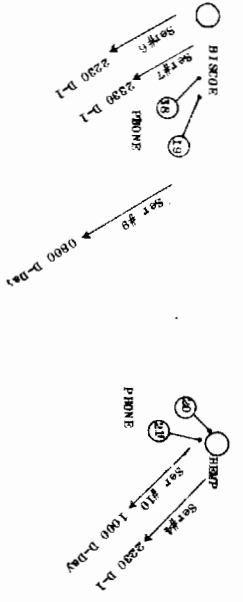
f. None of the personnel should be kept waiting to emplane for long periods of time, nor should fatigue be induced by long briefings. The emotional tension and physical fatigue resulting from long alert periods increase the incidence of air sickness and decrease the proficiency of participating personnel.

g. Continued instruction in necessary sanitary precautions is clearly indicated. Many officers are not yet impressed with the potential casualties that can be traced directly to poor sanitation.

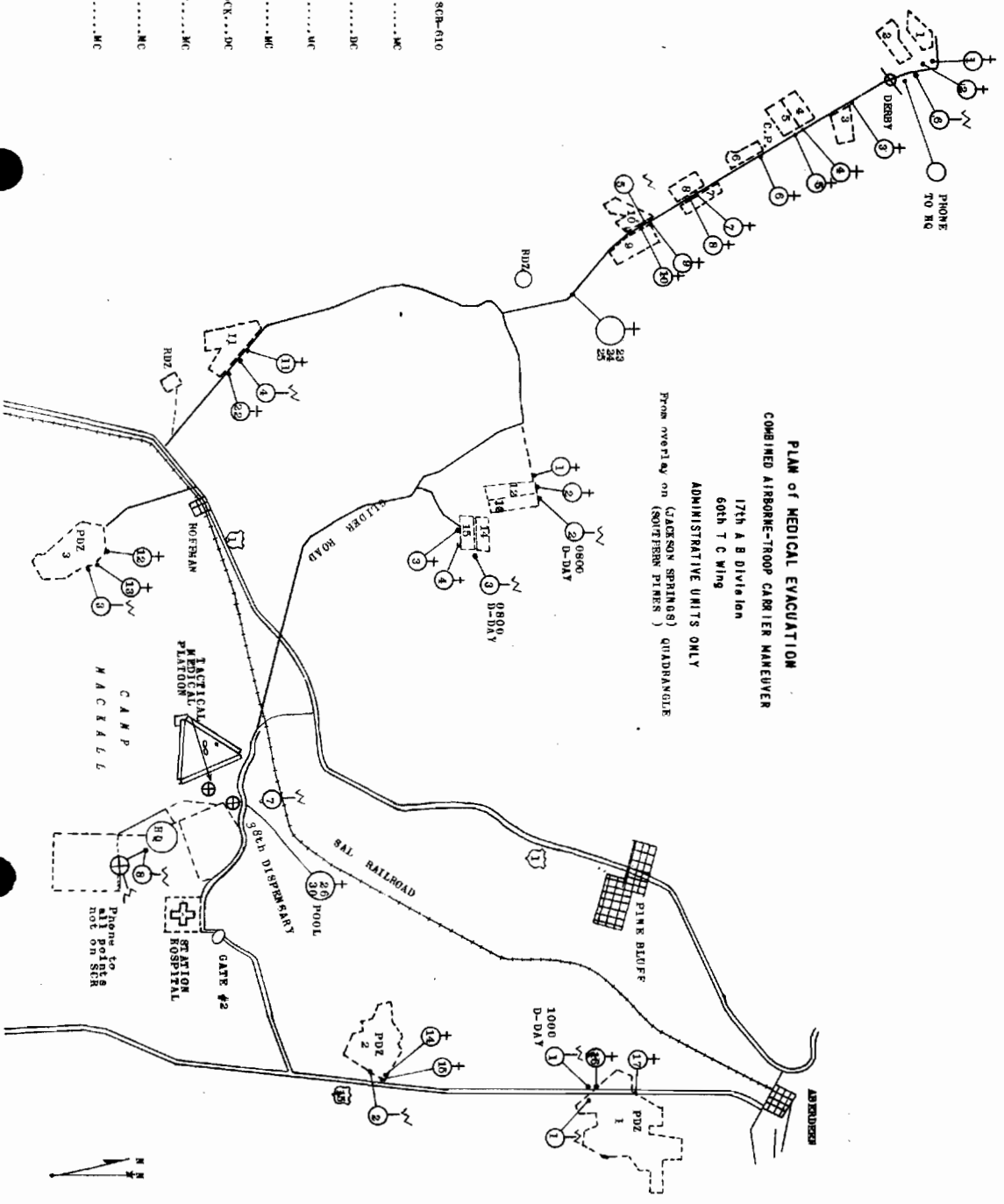
h. The early commitment of second echelon medical personnel is necessary. A portion of the medical company should be available for action immediately after the combat units have landed.

JUDLEY A. PFAFF
Lt. Col., M. C.
Maneuver Surgeon (Air)

MARSHALL H. BRUCER
Captain, M. C.
Maneuver Surgeon (Ground)



- - Ambulance
- - Impire with SCR-610
- - MAJ ROCHER.....MC
- - Lt. FICCOLINI.....DC
- - Capt. SATTI.....MC
- - Lt. BLACK.....MC
- - Capt. WEINSTOCK.....DC
- - Capt. BRIMSON.....MC
- - Capt. KENNETH.....MC
- - Capt. KENNETH.....MC



PLAN of MEDICAL EVACUATION
COMBINED AIRBORNE-TROOP CARRIER MANEUVER
 17th A B Division
 60th T C Wing
ADMINISTRATIVE UNITS ONLY
 From overlay on (JACKSON SPRINGS) QUADRANGLE



COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

10 January 1944

SUBJECT: Report of Field Artillery Section.

TO: The Maneuver Director, Combined Airborne-Troop
Carrier Maneuver Headquarters, Camp Mackall, N.C.

1. The artillery of the 17th Airborne Division consisted of Division Artillery Hq and Hq Battery, 460th Prcht FA Bn, and 680th and 681st Glider FA Bns, a total of 4 Hq Batteries, 7 firing batteries and one AA-AT Battery. Before the departure from airdromes all field artillery battalions were incorporated in regimental combat teams. All firing batteries were attached to infantry battalions. Battery "D", 460th Prcht FA Bn was attached to the 155th Airborne AA Bn.

2. Only 5 members of Division Artillery Hq and Hq Battery arrived in the forward area. The remainder of Division Artillery Hq and Hq Battery and Battery "D", 460th Prcht FA Bn, were assigned to Serial #22, which on account of bad weather was not flown. Other units came in generally as planned.

3. a. The 460th Prcht FA Bn, attached to 517 CT, landed by parachute and glider as part of four different serials. Battalion control of the firing batteries was not established.

b. Battery "B" flew as part of the 2nd Bn, 517th Prcht Inf serial and landed by parachute from 11 C-47's in PDZ #1 about 3 miles from the battalion objective and about 8 miles from the remainder of the 460th Prcht FA Bn. One gun plane turned back because of engine trouble. The battery had assembled 2 howitzers and all other equipment in the vicinity of the jump field by 2400, D-1, 1-1/2 hours after jump. The assembly of the third piece was delayed until 1000, D-Day, by a lost front trail. 3- 1/4-ton trucks reached this battery from the 517 CT.

c. Battery "A" personnel jumped from tug ships on PDZ #3 at 2230, D-1. The howitzer and trucks of this battery were landed at GDZ #11, 3 1/2 miles away. Two gliders carrying trucks never arrived in the GDZ. 4 howitzers, 2 1/4-ton trucks and other equipment were assembled near the jump field by 0115, D-Day. The battery moved to the vicinity of the Mackall Airport with the 1st Bn, 517th Prcht Inf. The battery remained attached to the 1st Bn, 517th Prcht Inf., throughout the maneuver.

d. Battery "C" jumped from tugs on PDZ #3 at 2330, D-1. By 0230, D-Day, the battery less one howitzer was assembled near the jump field. The 4th howitzer joined the battery at 0400, D-Day. All howitzers and 1/4-ton trucks of "C" Battery were landed by glider in GZ #11 along with those of "A" Battery. After assembly the battery moved to Mackall Airport with the 3rd Bn, 517th Prcht Inf.

e. Hq Battery, 460th Prcht FA Bn, jumped in two echelons at 2330, D-1, and at 0025, D-Day. By 0145, D-Day, it was 70% assembled. Hq Battery moved to Mackall Airport with the Hq, 517th Prcht Inf, but did not establish communication with the firing batteries.

4. a. The 680th Glider FA Bn landed by battery in 3 air landed serials at Mackall Airport. Battery "A" landed at 2250, D-Day. Battery "B" landed at 0735, D plus 1. Hq Battery landed at 0920, D plus 1. As each battery closed it moved into bivouac near the airport.

"Report of Fld Artillery Section" - Cont'd.

b. The Commanding General, Division Artillery placed the 680th Glider FA Bn in position to reinforce the fires of the 681st Glider FA Bn in the sector of the 194th Glider Inf on the morning of D plus 2. Necessary survey, observation, and liaison were initiated. It is believed that the 680th Glider FA Bn was capable of performing its missions.

5. a. Hq Battery, 681st Glider FA Bn landed with Battery "B" and the 194th Glider Inf (less 1st Bn) in the Tactical Glider Landing Area at 0830, D-Day. The battalion was assembled by 1200, D plus 1. The Battalion fired one concentration the morning of D plus 2 in support of the 194th Glider Inf. Communication was established with both "A" and "B" Batteries at 1600, D plus 1.

b. Battery "A" landed in GDZ #1 and #2 at 2230, D-1. It was short 7 gliders filled with 2 howitzers, 3 $\frac{1}{4}$ -ton trucks, and personnel and ammunition. The battery less 2 howitzers was in position after a 10 mile march behind the 1st Bn, 194th Glider Inf at 1233, D-Day.

c. Battery "B" landed in the Tactical Glider Landing Area at 0830, D-Day, with all equipment. It remained with the 2nd Battalion, 194th Glider Inf, until the morning of D plus 2. The battery fired two battery missions the afternoon of D plus 1 and a battalion mission the morning of D plus 2. One piece fired on a road block.

6. The 465th Glider FA Bn (Red) changed position only twice during the maneuver. It fired a total of 3928 rounds of a total of 10,000 on hand. These rounds were expended in 22 missions, all under battalion control, 21 of which were marked as effective on the enemy. The 22nd mission, one of interdiction of a road junction, was fired on orders from the Red CP. It fell on a Red Anti-Aircraft Gun.

7. Conclusions:

a. The 460th Prcht FA Bn never functioned as a battalion. Throughout the entire maneuver its batteries were so dispersed that the battalion was ineffective as artillery.

b. The presence of the CG, Division Artillery, made possible the coordination of the 680th Glider FA Bn with the 681st Glider FA Bn in support of the attack of the 194th Glider Inf.

c. The 681st Glider FA Bn did not reach its maximum effectiveness until noon of D plus 1 when it was assembled for the first time, 15 $\frac{1}{2}$ hours after landing.

d. Only the landing of transportation by glider made possible the movements which the 460th Prcht FA Bn made during the maneuver.

e. Failure of Regimental Combat Team Commanders to assemble FA Bns promptly after landing rendered all blue artillery very ineffective.

f. The assignment of FA Batteries to infantry battalions for use as anti-tank and direct fire weapons dissipated the divisional artillery and rendered impossible the effective direct support of the infantry. It precluded massing of artillery fires as a means of the division commander for influencing action.

g. In general the loading and commitment of the Division Artillery precluded its effective use.

"Report of Fld Artillery Section" - Cont'd.

h. The missions fired by the 465th (Red) FA Bn demonstrated the effectiveness of an airborne FA Bn under battalion control in a situation permitting its proper employment.

8. Recommendations:

a. That artillery battalions be assembled under battalion control as promptly as possible after landing. That drop zones and loading plans facilitate such action.

b. That Division Artillery Command and Operation echelons reach the forward area early in the action.

c. That the need for AT and direct fire weapons in infantry battalions be filled by providing these weapons without disturbing the existing organic divisional artillery. That a 75 mm anti-tank battery be included in the divisional artillery for this purpose.

HARRISON B. HARDEN, Jr.
Major, F. A.,
F. A. Officer.

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

11 January 1944.

SUBJECT: Maneuver Report of Quartermaster Aerial Resupply
Base, Maxton Army Air Base.

TO: The Director, Combined Airborne-Troop Carrier Command
Maneuver Headquarters, Camp Mackall, N. C.

1. In compliance with Memorandum this Headquarters,
dated 24 December 1943, the following report of activities
of the Quartermaster Aerial Resupply Base is submitted.

2. General:

a. Units employed:

135th Quartermaster Truck Company (Troop)
410th Airborne Quartermaster Company
715th Airborne Ordnance Detachment
466th Service Battalion (Provisional)

3. Organization of loading teams:

a. Prior to moving service units to the bivouac
area at the Maxton Army Air Base, loading teams were organized.

b. Eight (8) man teams each consisting of 3 trained
men from the 410th Airborne Quartermaster Company, supplemented
by 5 laborers from the Service Battalion were formed.

c. Due to the limited strength provided by the T/O
of the 410th Airborne Quartermaster Company, this organization
could only furnish trained personnel sufficient to organize
20 loading teams.

d. An officer was placed in charge of a group of
4 teams and was held responsible for the loading of a group
of planes assigned his teams.

e. A non-commissioned officer from the 410th Air-
borne Quartermaster Company was placed in charge of each team
and was responsible to the officer in charge of his group for
the loading of planes assigned his teams.

f. Each team was given a number beginning with #1,
each man on a team was furnished an arm band indicating there-
on the team number to which he is assigned.

g. Prior to moving Service units to Maxton Army
Air Base, teams were given training working as teams. C-47
mock-ups were employed during this training.

4. Period 3 January to 9 January 1944.

a. Service units were moved to the bivouac area
located at the Maxton Army Air Base 3 January 1944..

b. Headquarters, Quartermaster Aerial Resupply
Base was opened in the bivouac area 0800, 3 January 1944.

c. All classes of supplies (rations, gasoline, oil,
medical, signal, C.S., Engineer and Ordnance) were moved to
Maxton and each DP established. Dumps were dispersed and
camouflage was employed.

(Report of QM Aerial Resupply Base, Maxton AAB, Contd)

d. Requirements for resupply to the 17th Airborne Division was received, the Headquarters Section, 410th Airborne Quartermaster Company prepared flight forms and schedules for each supply mission.

e. The 135th Quartermaster Truck Company was assigned the mission of providing transportation of plane loads from the various DPs to the airfield.

5. No resupply by air was accomplished on account of bad weather conditions.

6. Conclusions:

a. Master Schedule for 17th Airborne Division Resupply beginning D plus 1 through D plus 2 is attached hereto.

b. Loading teams organized as outlined in paragraph 3 would avoid confusion and enable team leaders to keep their teams intact.

c. It is believed that a maximum of 40 planes could be loaded in a one hour period by 20 such teams.

JOSEPH E. HARRIS
Major, QMC
Quartermaster (Air)

JOSEPH M. MCKEE, JR.
Lt. Colonel, QMC
Quartermaster (Gn)

1 Incl:
Incl #1 Master Schedule.

MASTER SCHEDULE
17TH AIRBORNE DIVISION AERIAL RE-SUPPLY
5 - 9 January 1944.

	Total Weight	Weight per Plane	Planes Required
<u>D plus 1</u> <u>Serial 23</u>			
1100 Cases Rations, Type "C"	45100	4100	11
300 Cans Gas and Oil, 5 gal. ea.	12390	4130	3
1 Lot Ammunition	90200	4247	21
1 Lot Medical Supplies	3803	3803	1
1 Lot Signal, Engineer, CWS Supplies	13300	4400	3
TOTAL	164793		39
<u>D plus 1</u> <u>Serial 24</u>			
1 Lot Ammunition	164000	37-4400 1-3300	38
<u>D plus 2</u> <u>Serial 25</u>			
1 Lot Ammunition	164000	37-4400 1-3300	38
<u>D plus 2</u> <u>Serial 26</u>			
1 Lot Ammunition	158298		38
<u>D plus 2</u> <u>Serial 27</u>			
1100 Cases Rations, Type "C"	45100	4100	11
300 Cans Gas and Oil, 5 gal. ea.	12390	4130	3
Wire 50 reels	6750	3375	2
1 Lot Signal, Engineer, and CWS Supplies	11578	3859	3
1 Lot Ammunition	81116	4269	19
TOTAL	156934		38
<u>D plus 2</u> <u>Serial 28</u>			
1 Lot Ammunition	144360		35
<u>D plus 2</u> <u>Serial 29</u>			
1100 Cases Rations, Type "C"	45100	4100	11
300 Cans Gasoline and Oil, 5 gal. ea.	12390	4130	3
1 Lot Ammunition	95196		23
TOTAL	152686		37
<u>D plus 2</u> <u>Serial 30</u>			
1 Lot Ammunition	82402		20

Incl #1.

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

10 January 1944.

SUBJECT: Maneuver Report of Ordnance Special Staff Section
(Ground)

TO: The Director, Combined ABTC Maneuvers.

1. The mission of the Ordnance Section of Maneuver Headquarters during the maneuver of the 17th Airborne Division was primarily threefold.

a. To have available for supply to the 17th Airborne Division and attached units simulated ammunition (sand loaded containers) sufficient for the tactical situation.

b. To procure necessary parts and materiel to repair 252 vehicles assigned to the Observers and Umpires Motor Pool.

c. To make necessary 2nd and 3rd Echelon repairs on vehicles of the Observers and Umpires in the shortest possible time.

2. The 715th Airborne Maintenance Company was assigned to this Headquarters for the above purpose and the mission was accomplished as follows:

a. Simulated ammunition available from Airborne Command Headquarters was supplemented by additional containers requested from the Army Ground Forces and filled with sand. Due to bad weather no resupply of ammunition was withdrawn from the Ammunition Supply Point at Maxton AAB, although approximately 3 units of fire were available (614 tons). Ammunition was drawn from the A.S.F. on request of the 17th Airborne Division to complete the initial load (69 tons drawn) and to prepare for a parachute resupply mission of one unit of fire for an AB Battalion Combat Team (22 tons approx.).

b. Necessary maintenance repair parts were procured from the 297th AB MM Co or from Post Ordnance (Automotive Section).

c. 206 second and third echelon jobs were performed and a maximum of four vehicles were deadlined at any one time awaiting parts including two engine assemblies not available on this post.

3. It is recommended that for future maneuvers the ammunition requirements be submitted not less than 30 days prior to D day. This time is necessary if requirements are to be met due to the time required to obtain containers, prepare for use, and move to ASP area.

/s/ J. D. HUDSON
Captain, Ordn Dept.
Maneuver Hd Ordn Officer.

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

10 January 1944.

SUBJECT: Maneuver Report of Air Ordnance Activities.

TO: Maneuver Director.

I Supply

1. Ammunition:

a. No small arms ammunition was issued to Troop Carrier units for maneuver purposes.

b. 250 pyrotechnic kits were prepared and issued to the unit supply officers. One of these kits was placed in each glider. A kit consisted of the following:

- 2 - Signals, aircraft, green star M 16
- 2 - Signals, aircraft, red star, M 11
- 1 - Pistol, pyrotechnic, M 8
- 2 - Green fuzes
- 2 - Red fuzes

2. Weapons:

a. The 438th Group were equipped 100% with their authorized allowance of carbines, pistols and sub-machine guns.

b. The air crews including the glider personnel of the 439th, 440th and 441st Groups were equipped 100% with authorized allowances of carbines and pistols. The ground echelons were not fully equipped but were equipped as far as available weapons would allow.

3. Transportation:

All troop carrier units participating in the maneuver were completely equipped with authorized allowances of vehicles. The groups towing gliders were equipped with additional $\frac{1}{2}$ ton weapons carriers, which were used to tow gliders into position for take-off.

II MAINTENANCE

1. All troop carrier groups were visited by the writer accompanied by the 60th Wing Ordnance Officer. The maintenance and transportation problems of the units were discussed with the Group Commanders, Group Ordnance Officers, Squadron Commanders and Squadron transportation Officers. As far as possible all problems were worked out. Discrepancies in operation and maintenance were brought to the attention of the transportation personnel and the Commanding Officers.

2. The facilities of the 3rd echelon weapons and automotive shops at Tope and Maxton Air Bases were used to full advantage during the maneuver.

III RECOMMENDATIONS

1. In future maneuvers it is recommended that adequate vehicles required by Maneuver Headquarters for various administrative purposes be authorized and supplied. This will eliminate the necessity for calling on tactical units to supply vehicles for administrative purposes.

2. It is recommended that in future maneuvers the requirements for transportation, weapons and ammunition (pyrotechnics) be determined at least 30 days in advance, so that the necessary action can be taken to supply the requirements.

/s/ ROBERT J. REID
Major, Ordnance
Air Ordnance Officer.

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

9 January 1944.

SUBJECT: Maneuver Report of Provost Marshal.

TO : Maneuver Director, Combined Airborne-Troop Carrier Maneuver.

The following is report of activities of Provost Marshal, Combined Airborne Troop Carrier Maneuver.

1. Composition of Provisional Military Police Company.

a. Personnel: The Provisional Military Police Company consisted of three officers, 210 enlisted men.

b. Transportation: Transportation assigned the 1F Company consisted of:

- Five (5) 1/4 Ton Trucks
- Four (4) C & R Cars
- Six (6) Solo Motorcycles
- Four (4) 2-1/2 Ton Trucks.

2. Traffic Control.

a. Rear Areas

- (1) Supply installations at departure fields were marked.
- (2) Military Police details were assigned to each departure base to control maneuver traffic and personnel. These details were attached to the respective base guard squadrons for rations and quarters.

b. Landing Areas and Parachute Drop Zones.

- (1) Civilian traffic was rerouted around the maneuver area by maneuver military police in cooperation with North Carolina State Highway Patrol.
- (2) All glider landing areas and parachute drop zones were blocked by military police during landings.
- (3) Maneuver military police assisted the military police of the 17th Airborne Division to control non-tactical traffic in the Mackall Airfield Area.

c. Miscellaneous

- (1) Motorized patrols expedited the flow of military traffic.
- (2) Traffic control posts were established at all hazardous intersections in the vicinity of Pinhurst, Aberdeen, Southern Pines, Hoffman and Camp Mackall.

3. Observers.

a. Military police escorted all organized observer convoys and operated a guide and road block system along routes.

b. Assisted in control of observers and civilians at the various observation posts during the actual glider landings and parachute drops.

4. Miscellaneous.

a. Patrols inspected eating and drinking establishments in nearby towns to prevent loitering by maneuver personnel.

5. Recommendations.

a. A group of ten (10) trained military police including five (5) non-commissioned officers should be made available to the Provisional Military Police Company to act as instructors and to perform jobs which require considerable training in military police work.

/s/ Samuel Roth
/t/ SAMUEL ROTH
Lt. Col., Infantry

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

10 January 1944

SUBJECT: Maneuver Report, Engineer Section.

TO: Director, AB-TC Maneuver Headquarters.

1. In compliance with instructions Staff Memorandum, 7 January 1944, following report is submitted dealing with the Engineer Section in connection with combined maneuvers 17th Airborne Division, 60th Troop Carrier Wing.

2. Tactical.

a. 882nd Airborne Engineer Aviation Battalion.

882nd Battalion was moved in upon notification from the Infantry Battalion Combat Team that the Mackall Airfield had been secured at 0220 7 January. The 882nd Battalion went into tactical bivouac, dispersed along the Eastern runway of the field. The mission of battalion was to clear one concrete runway of any wreckage resulting from crash or faulty landings. The battalion set out outposts and one roving patrol for local security and also placed along the runway its eight 50 cal AA machine guns.

b. 139th Airborne Engineer Battalion (17th Airborne Division)

Operations by the 17th Airborne Division included only the most minor requirement for use of Engineer troops.

One platoon of C Company (Parachute Company) was attached to each battalion combat team of Parachute Infantry. Each platoon made its parachute drop in conjunction with the drop made by the battalion combat team to which it was attached. Two platoons were consolidated at Mackall Airfield and given the task of erecting and guarding a barrier line along Muddy Lake Creek. The third platoon accompanied its battalion combat team northward through Ashley Heights and throughout the operations.

The Battalion Headquarters, Division Engineer and companies A and B came in by air landing on Mackall Airfield at 1055 D / 1, Serial 20.

3. Administrative.

All administrative matters for the maneuver headquarters were handled by the Engineer Officer - Ground. The Engineer Officer - Air, did not arrive in this headquarters until 2 January. This officer was also the CO of the 882nd Airborne Engineer Aviation Battalion and as such was concerned mostly with matters pertaining to his battalion's participation in the maneuvers. The items of most interest are as follows:

a. Roads.

The roadnet along which the glider landings were made and the majority of the ground activities took place was a county system, with 4-ton bridges, composed of sand and gravel roads unsuited even to medium traffic. By arrangement with the County Road Superintendent and the Post Engineer, machines were made available to work on these roads for about a week prior to the maneuvers.

A very heavy 2-day rain three days prior to the maneuver nullified most of the work that had been done and made quick recovery almost impossible due to the wet condition of the clay and sand. However, by obtaining additional road equipment from the Engineer Property

Officer on MR and by use of personnel from engineer troops, plus additional work by the County and Post Engineer, the roads were put in first-class shape in time for the maneuver.

b. Signs.

All roads passable for sedans and trucks from PDZ 3 to Derby and northeasterly into Pinehurst, and up to Knollwood Airfield were marked in such manner that observers could go from any point in the maneuver area to another point provided that the name of the point of destination was known. Each glider landing field and parachute drop zone was likewise marked so as to inform the observer upon arrival at such field. A total of more than 600 signs were used in this marking. The roadnet marked covered totalled approximately 150 miles and included most interior county roads.

c. Observer Stations.

Certain locations at the glider landing fields and parachute drop zones were laid out and marked for observer stations. It was required that all observers watching glider landings or parachute drops remain within these areas which were inclosed in white tapes.

d. Supplies.

To add realism to the maneuver, explosives and mines (simulated) were supplied. These items were not available in practice form from normal supply sources and therefore had to be fabricated. The following items were supplied for divisional use:

Anti-Tank Mines - 500 boxes, 5 mines per box.

TNT - 240 50-lb. cases complete with 24,000 wooden blocks sized as $\frac{1}{2}$ -lb blocks.

Bangalore Torpedoes - 60 cases - sand filled, 150 lbs each.

1600 Tetrytol blocks (wood) simulating the 2- $\frac{1}{2}$ lb blocks; five per set included in the Parachute Demolition Kit No. 5.

Sufficient notice was given to construct the cases in some order. However, the requirement for the 24,000 TNT blocks and 1600 tetrytol blocks was received only a few days before the maneuver. To produce these simulated explosives required purchase of lumber and the use of saws belonging to the Post Engineer, the Hq Co, APC, and one or two other organizations. By considerable effort, the simulated explosives were ready on time.

e. Power Suspension.

A 110,000-volt double circuit transmission line of the Carolina Power and Light Company crosses the Derby area at right angles to the Derby Road between GLF 2 and GLF 3. In addition, running parallel to the Derby Road in GLF 6 is a 6900-volt rural line.

By arrangement with the Power Company, electric power was turned off in these power lines from 2000 on D-1 to 0200 on D-Day. In addition, four spans of the 6900-volt line were laid down on the ground which necessitated the suspension of service on D-1 at about 1400 as the line was cut and the poles pulled and laid upon the ground. The power suspension was made on two nights.

The Power Company proved very cooperative in this safety measure and ran considerable risk on suspending service of the 110,000-volt line. This transmission line is one of the main transmission lines and normally carries approximately 80,000 kilowatts. Suspension of service on this line meant that this amount of power had to be relayed around the system through other circuits which increased the transmission losses.

The Power Company ran considerable risk in taking this line out of service, as it was the only reserve line had any trouble occurred elsewhere on the system.

f. Fencing.

A seven-strand barbwire fence was constructed by engineer troops around a parking lot adjacent maneuver headquarters. This fence was erected as a safety measure, as parked within the inclosure were all of the $\frac{1}{4}$ -ton radio trucks.

g. Glider Field Clearance.

At the request of the 60th Wing, all hazards to glider landings were cleared. This included hay stacks, stumps, trees farm machinery, stakes, etc.

h. Warning Lights.

Battery fed, red warning lights were placed two each on twenty of the steel transmission towers in the Derby area. Ten towers on either side of the flight path were so marked.

A number of tow ship and glider pilots stated that they did not see these warning lights. Other glider pilots stated that the lights were too dim.

It should be taken into consideration that these warning lights were not intended to be navigation aids, and therefore were of low intensity. It is certain that had any glider pilot or tow ship pilot approached so closely to the transmission towers that they had been in danger of collision the lights would have been seen in time for the pilot to veer off. This is based on the $1\frac{1}{2}$ -mile visibility of such lights from the ground. Lights were supplied by Army Air Corps.

i. Engineer Reproduction Section.

Following requests filled for Maneuver Headquarters:

TYPE OF WORK REQUEST	NO OF REQUESTS	QUANTITY	REQUESTED BY	REMARKS
a. <u>Mimeograph</u> , 469 sten-cils	72	35,200	All sect. thru AG	
b. <u>Photographic</u>				
Photostat	1	30	A-1; G-1	
Ground photography	7	485	PRO: AG	
Copy Camera	3	20	G-3; G-4	
c. <u>Maps, Overlays, Charts</u> :				
prepared by hand and multilith				
Overlay, smoke (3)	1	2700	G-3; A-3	
Map, Hamlet quad	1	500	G-2; Eng	Emergency
Annex Maps (5)	2	4500	A-4; G-4	Rerun
Initial Situation	1	1400	G-3; Ump	
Chart, QM Operation	1	1	QM	
Medical stations	1	500	Med	
Organizational Chart	2	200	AG	Rerun
Situation Maps	3	6	(Obs Bureau; Umpire)	Large Hand job
Wire net, overlay	1	400	Sig	
d. <u>Signs - all types</u>				
Name, desk	3	15	AG	
Map symbols	2	30	Ump; OB	
Medical	1	3	Med	
Road	6	550	Engr; WP	*
Umpire Phones	1	50	Sig	*
Vehicles Nos.	2	175	Hq Comdt	

TYPE OF WORK REQUEST	NO OF REQUESTS	QUANTITY	REQUESTED BY	REMARKS
<u>e. Miscellaneous</u>				
Medical tags	1	400	Med	
Movement tables	1	300	A-3: G-3	
Reprint booklet				
"Story of AB-TCC"	1	1000	OE	
Airfield layouts (6)	1	600	17th AB Div:	
Prepare inserts,				
cover in color,				
and back for 26 re-				
ports of maneuver	1	26	AG	
Signal SOP	1	300	Sig	
***TOTALS.....	117			

* This section made road signs on paper as an EXPEDIENT - such a job normally would be handled by the Post Engineer, who has the trained personnel, materials, and equipment to do a satisfactory job, if allowed sufficient time. These paper signs should have lasted for the duration of the maneuvers; but due to rain, all of the signs had to be replaced by other sources. This section is not equipped to do sign painting.

- Notes:
1. This section, in cooperation with the A-2:G-2 and Engineer Officer, requisitioned maps required for the maneuver.
 2. Hamlet quadrangle, scale 1:62,500, full sheet, was hard to supply; so as expedient, this section made a half-tone of this sheet and ran 500 copies - very few of these sheets were used. However, the Chief of Engineers located and furnished this section with 400 copies of this map on the day prior to the beginning of the maneuvers, and the proper distribution was made.
 3. The 17th AB Division did not make any requests on this section other than the request for airfield layouts which were on hand. However, the G-3 of the division did use the "Ditto" duplicator to make up their overlays. No materials were furnished by this section.

*** Additional requests are expected until the maneuver headquarters is closed.

j. Map Issue

Approximately 12,000 maps and quadrangles were issued as follows:

SCALE: 1/62,500

QUADRANGLE	COPIES
Candor	746
Vass	755
Jackson Springs	1006
Southern Pines	1062
Hamlet	795
Troy	803
Rockingham	746
Laurinburg	775
Powelton	773

<u>TROY:</u> 1/20,000	SHEET	NUMBER
	#22	70
	#23	300
	#24	347
	#28	70
	#29	195
	#30	226
	#34	64
	#35	114
	#36	209

<u>SANFORD:</u>	SHEET	NUMBER
	#19	262
	#25	148
	#26	109
	#24	34
	#31	104
	#32	70

QUADRANGLE SCALE: 1/20,000

LAURINEBURG	SHEET	NUMBER
	#1	75
	#2	72
	#7	44
	#8	52

ROCKINGHAM	#4	64
	#5	65
	#6	185
	#11	50
	#12	51

SCALE: 1/125,000

FORT BRAGG AND VICINITY Road Maps.	(Set of 3)	225
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SCALE: 1/50,000

CHARLOTTE	Charlotte	283
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SCALE: 1/50,000	Strategic Map Set "A"	135
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SCALE: 1/125,000	Moore County	55
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SCALE: 1/15,000	Aerial Mosaic	150
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SCALE: 1/20,000	SHEET	NUMBER
FORT BRAGG	1 of 9	318
	4 of 9	220
	7 of 9	48

k. Engineer Personnel.

All military police, plus other details on glider recovery and guards was furnished by engineer troops. The total was approximately 350 EM. The engineer troops had done such a successful job on the 11th Division maneuvers that they were designated for the same duty in the 17th Division maneuvers.

ROBERT ALEXANDER
Major, CE.

[REDACTED]

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
CAMP MACKALL, NORTH CAROLINA

12 January 1944

SUBJECT: Report of Maneuver, Chemical Warfare Section.

TO : Director.

1. Activities during the period 13 December 1943 to 11 January 1944 were concerned mainly with plans for resupply of Chemical Warfare ammunition. Chemical Warfare ammunition used during the maneuver was live ammunition with the exception of Grenades, hand, smoke, WP, M5, and Grenades incendiary AN-174 which were simulated.

2. Several conferences were held with the 17th A/B Division Chemical Officer to discuss supply of chemical warfare ammunition and to make the necessary plans for re-supply by air during the maneuvers.

3. The live chemical warfare ammunition and a sufficient number of weighted boxes to simulate other items of chemical warfare ammunition desired for re-supply, were delivered to the ammunition supply point at Maxton Army Air Base where an Ordnance Unit handled the re-supply of ammunition.

4. Six thousand pounds of FS smoke mixture were delivered on request of the A-2 Section of Maneuver Headquarters to the airport at Camp Mackall, N. C. This smoke was loaded into smoke tanks of A-20 airplanes by a detachment from the Chemical Warfare Air Operations platoon stationed at Morris Field, Charlotte, North Carolina. Plans for Smoke missions are included in the Air Annex to Field Order #1 dated 28 December 1943.

5. No major difficulties were encountered by the chemical warfare section of Maneuver Headquarters.

/s/ J. P. Woodside,

/t/ J. P. WOODSIDE,

Capt, Inf.

CWS Officer (Ground)

[REDACTED]

APPENDIX E (1)

Blue Forces -
17th Airborne Division

BLUE FORCES 1

13 January 1944.

REPORT ON THE AIRBORNE MANEUVER

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SECTION I - GENERAL

1. Plan.

a. The Commanding General of the 17th Airborne Division was directed to move by successive air lifts from Pope Field, Laurinburg-Maxton Army Airbase, Lumberton and Florence, to capture and secure Mackall Airfield for subsequent air-landing of the Second Division and to prevent any movement of Red troops through Aberdeen and vicinity. The 60th Troop Carrier Wing was to furnish the necessary air transport.

b. Based upon this directive it was decided to bring the Division in to Camp Mackall and vicinity in three complete Combat Teams as far as possible. The 517th Parachute Infantry to drop as indicated on Operations Overlay (FO #1), the 192nd Combat Team to be brought in by glider and the 193rd Combat Team to be air-landed by plane along with the remainder of the Division. (See Air Movement Table.)

c. Parachute Drop Zones and Glider Landing Fields were agreed upon between the 17th Airborne Division and the 60th Troop Carrier Wing. It was directed by Maneuver Headquarters that the night glider landings be made in the Berby Area and the day glider landings in the Tactical Glider Landing Area.

2. Billeting. Necessary arrangements were made at the various departure fields by G-1 for bivouac sites.

3. Training of Pathfinders. During the period 15 November 1943 to 3 January 1944, members of the Intelligence Section, Division Headquarters, were attached to the 60th Troop Carrier Wing, where they received instructions in the operation of glider equipment and in the marking of glider landing and jump fields. The purpose of the Pathfinder personnel was to drop in enemy territory prior to D-1 Day, to place and operate beacon equipment, to assist our aircraft, and to mark the Glider Landing and Parachute Drop Zones.

4. Operational Plan. The planning of this operation and any Airborne operation is divided into two parts: a. the Tactical Plan and b. Air Movement Plan.

a. The Tactical Plan.

- (1) The mission given to the 17th Airborne Division was a dual mission: first, to capture and secure Camp Mackall Airfield for subsequent air landings of the Second Division, and second, to prevent any movement of Red troops through Aberdeen and vicinity.
- (2) To accomplish this mission, the 60th Troop Carrier Wing consisting of 4 Groups and 250 gliders was available.
- (3) With the mission in mind and the air transport available, a general tactical plan was drawn up.

b. Air Movement Plan.

- (1) Although the tactical plan was conceived only after a study of the air transport available, yet there was a considerable amount of jockeying around necessary before the Air Movement Table could be published.
- (2) To begin with it was necessary to present our plan to the Wing staff. Based upon their knowledge of our plan they were able to draw up their own Air Movement Table. With this knowledge the Division was then able to complete its Movement Table, showing troops, times, etc.

- (3) It might be mentioned here that the Air Movement Table divided itself generally into two parts; first, the pre-D Day Landings and second, all other landings. As soon as the pre-D Day landing serials were determined, it was necessary to establish a priority for all other troops and fit them into serials the best possible way.

5. Supply. In order to properly plan for supply it is necessary that early decisions on the Air Movement Table be made as all supply and administrative movement plans must be based upon it. In this operation the following tonnages were to be carried in by the 17th Division and to be located in the combat zone prior to 1930 D + 1 (time Division closed) (See unnumbered memo., Supply, 17th Airborne Division, Incl. #3.)

- a. Class I - 37.8 tons
- b. Class II & IV - 44.0 tons
- c. Class III - 24.8 tons
- d. Class V - 238.0 tons

6. Control. In order to control the movement at the various Departure Fields, control teams consisting of two officers of the 17th Airborne Division were designated as Liaison Officers with each group of the 60th Troop Carrier Wing. The duties of these officers were to coordinate all planning and loading and to assist in general, the parachute and glider troops at the Departure Fields. Officers maintained contact with Division Rear CP by telephone and TWX.

SECTION II - MOVEMENT TO DEPARTURE FIELDS

1. General. The troops moved by motor from Camp Mackall to the four Departure Fields on the 2d and 3d of January without incident. Movement to Departure Fields on these dates enabled those units scheduled to leave on D+1 day to obtain a nights rest in the bivouac area prior to the take-off. This also enabled the initial serial sufficient time for last minute checking and loading of equipment.

2. Communications. Communications between Departure Fields was by telephone and TWX. In all cases this service was excellent.

SECTION III - LOADING - PERSONNEL AND EQUIPMENT

1. Parachute. Plans were loaded without incident.

2. Glider. The total number of 250 gliders were loaded with personnel and equipment. 200 gliders were loaded on the Leuringburg-Maxton Air Base and 50 gliders were loaded at Florence. For individual loads, see Glider Loading Table (Incl. #2). It is important that all gliders be at the Departure Field in ample time for the Air Corps and the Airborne troops to check them prior to loading. It is necessary that tail props and ropes be in each glider. The loading of all gliders proceeded in an excellent manner. All loads and lashings were checked by an officer at each Departure Field. It is believed that this procedure will add to the safety of all glider movements. The only case reported of a load breaking loose was when the glider crashed on its nose from an altitude of approximately 50 feet on Glider Landing Zone Number 7; in that instance the entire glider broke apart. It is also important that all concerned be particularly careful that rope is inspected and that sisal or hemp rope 5/8 inch in diameter be used.

3. Plane. All reports from the Departure Fields indicated that the pilots and flying crews were highly cooperative. In most instances, planes were spotted, numbered and prepared for loading at the time designated. For plane loads, see Loading Table (Incl #2). Loads carried in planes were as follows:

<u>Planes</u>	<u>Para-racks</u>	<u>Gliders</u>	<u>Gas</u>	<u>Maximum Payload</u>
Tugs	0	2	700	2100
Tugs	3	1	700	2100
Tugs	0	1	650	4400
Parachute Formation	0	0	600	6200
Parachute Formation	6	0	650	5600
Air Landing	0	0	600	4100
Resupply	0	0	600	4100
Resupply	6	0	650	5600

Maximum Payload for Gliders - 3750

SECTION IV - AIR MOVEMENT

1. Parachute. In the air movement, Serials 1, 2, 3 and 3A, consisted of one plane each. These four Serials flew on D-2 Day and dropped the Pathfinder group and Intelligence personnel at specified locations, Serial 4, consisting of 50 planes had four ships return to Pope Field due to their pilots missing the Drop Zone (planes 7, 21, 22 and 35). Serial 5, consisting of 9 planes from Lumberton, arrived over the Drop Zone without incident, Serial 6, consisting of 50 planes, departed from Maxton; 5 ships in this Serial returned, having missed the Drop Zone for some reason (planes 2, 4, 38, 40, and 41). The actual movement was satisfactory. 81% of 144 of 177 planes made the drop in the correct general area.

2. Glider.

a. The 100 gliders which took off from Maxton were in the air in 53 minutes. Out of the 100 that departed from this field, 14 failed to arrive at their respective Drop Zones. They were as follows:

Failed to Arrive

<u>Serial No.</u>	<u>Plane No.</u>	<u>Glider No.</u>	<u>Landed</u>	<u>Remarks</u>
Serial No. 6		105	Camp Mackall, N. C.	
		125	1 Mi. N. Florence Airfield	
Departed From		141	Maxton Airbase	
Maxton Airbase		147	50 Mi. W. Wilmington, N. C. near Tabor City, N. C.	
No. Planes - 50		149	13 Mi W. Nichols, S. C.	
		164	Wilmington Airbase	
No. Gliders - 100		165	Wilmington Airbase	
		168	Maxton Airbase	
Double Tow		169	Maxton Airbase	
		170	Pope Field	
		171	Hemp, N. C.	
		182	Near Maxton, N. C.	
		183	Near Maxton, N. C.	
		199	Near Maxton, N. C.	
<hr/>				
Serial No. 7	20		Florence Airfield	(Loads air-landed in later Serials.)
	38		Florence Airfield	
Departed From	43		Maxton Airbase	
Florence Airfield		205	Maxton Airbase	One load landed near Camp Mackall
		211	Mackall Airfield	
No. Planes - 50		212	2 Mi. S. Maysville, S.C. and ruled out of	
		213	2 Mi. S. Maysville, S.C. problem. (Remain-	
No. Gliders - 50		219	Near Maxton Airbase	ing loads returned
		223	3½ Mi. SW. Sumpter, S.C. to Maxton Airbase	
Single tow		237	Near Florence, S.C.	by plane and motor
		241	SW. Florence, S. C.	and air-landed in later Serials.)
<hr/>				
Serial No. 8				
Departed From				Dropped loads in
Lumberton, N. C.				PDZ No. 3.
No. Planes - 18				

Failed to Arrive

Serial No.	Plane No.	Glider No.	Landed	Remarks
9	Five			Failed to take-off due to mechanical difficulties.
	Departed From	342)		
	Maxton Airbase	347)		Mechanical difficulties.
		355)		
	No. Planes - 51			
		400)		
	No. Gliders - 102	401)		Two Gliders added from previous Serials.

Double Tow
Note: Of the 97 glider take-off's 100% or 97 arrived at their designated area.

Serial No. 10

Departed From
 Maxton Airbase

No. Planes - 44 All arrived at designated area.

Serial No. 11

Departed From
 Pope Field

No. Planes - 44 All arrived at designated area. (4 planes added from previous Serials.)

Serial No. 12

Departed From
 Lumberton, N. C.

No. Planes - 40 All arrived at designated area.

Serial No. 13

Departed From
 Maxton Airbase

No. Planes - 44 All arrived at designated area. (4 planes added from previous Serials.)

Serial No. 14

Departed From
 Maxton Airbase

No. Planes - 45 All arrived at designated area. (5 planes added from previous Serials.)

Failed to Arrive

<u>Serial No.</u>	<u>Plane No.</u>	<u>Glider No.</u>	<u>Landed</u>	<u>Remarks</u>
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Serial No. 15

Departed From
Pope Field

No. Planes - 40 All arrived at designated area.

Serial No. 16

Departed From
Lumberton, N. C.

No. Planes - 40 All arrived at designated area.

Serial No. 17

Departed From
Pope Field

No. Planes - 40	2)		
	4)		
	5)	Returned to Pope Field.	Stated that the planes
	6)		had become lost.
	30)		

Serial No. 18

Departed From
Lumberton, N. C.

No. Planes - 40 All arrived at designated area.

Serial No. 19

Departed From
Maxton Airbase

No. Planes - 40 All arrived at designated area.

Serial No. 20

Departed From
Maxton Airbase

No. Planes - 40 All arrived at designated area.

Serial No. 21 and 22

Scheduled to
Depart From
Maxton Airbase

Unable to take-off due to bad weather.

b. It is important that all members of the Medical, Ordnance and Quartermaster Companies, as well as the Division Bands, be thoroughly familiar with loadings and lashings. Although all planes were loaded within the required time, it is believed that additional training of all Division Personnel will increase the efficiency in the loading of planes.

3. Task Force labor in general was not satisfactory. The Ordnance Company reported that in one case only 18 men were available instead of the 56 as planned. For the loading of planes, 50 enlisted men should be attached to the Ordnance Company. In as much as Serial 21 and 22 failed to take-off from the Departure Field the complete Supplies of the Division were not brought in, nor were resupply missions flown.

SECTION V - LANDINGS

1. Parachute. In general the parachute landings were satisfactory. One death and 38 injuries occurred. None of the injuries were serious. Considering the hardness of the ground, night landings, and the amount of equipment, landing casualties of slightly more than 1% is considered good. In actual combat, at least $\frac{1}{2}$ of these men could have continued.

2. Glider. In the glider landings 4 glider passengers and 2 pilots were injured.

3. Plane.

a. At the Mackall Airfield the unloading of planes was accomplished expeditiously; in only two serials was the allotted time for unloading exceeded. In these two instances, a few minutes in time was needed because the planes were not parked in the places in which the unloading teams expected them to be. All troops seem well trained in unloading and, except in isolated instances, knew where to go after their planes had been unloaded. At the field itself, the following constituted the ground force field control system: an officer in charge with two officer assistants, a non-commissioned officer, three messengers and two jeeps with drivers. This group was centrally located and maintained close physical contact with all field units. Operating under this central group were four field control groups each consisting of an officer, a non-commissioned officer, three messengers and a lineman who maintained communications between the central control group and each of the subordinate groups. (One of these groups was stationed at the designated location for the parking of each of the Troop Carrier squadrons of which there were four in each serial.)

b. For such an operation it is believed that the above is excellent. Prior to the operations, the exact location of unloading points must be known to the ground control groups and to each squadron commander. These locations must not be changed. However, they may be changed at times because of lack of knowledge on the part of pilots, weather conditions or perhaps enemy action. For this reason the officer in charge of any unloading teams should report to the field control officer prior to the arrival of each serial for last minute instructions and thereafter should maintain contact with the control officer through the telephone system. Contact with Division Headquarters was maintained by staff visits. It is believed that either wire or radio communication should be provided in the future.

4. Supply. Only two Serials contained supplies, food and ammunition, for which 20 planes were used in each Serial. For these the unloading teams provided by the Quartermaster were adequate. It should be borne in mind, however, that an entire serial of 40 or more planes will transport supplies and such serials will follow each other rapidly. For this reason at least 60 separate unloading teams should be provided, each team to consist of but two men, which will be enough to get the boxes and cloverleaves out of the plane and a reasonable distance from it. The supplies should then be hauled away as rapidly as possible, using as many jeeps hauling trailers in tandem as are available.

SECTION VI - OPERATIONS - BY DAY FROM 0001 TO 2400

GROUND
1. G-1, G-1 and staff section landed at Camp Mackall Airfield at 1200 D-day, established traffic control and assisted the control officer.

2. G-2.

a. D-2.

- (1) Pathfinders, G-2 teams and 41 intelligence men from the 517th dropped in vicinity of Camp Mackall, Troy and Cameron.
- (2) CP established at Maxton Airbase.

b. D-1.

- (1) Troy and Cameron G-2 teams reported in via S-2, 517th at Mackall (Forest Ranger Tower).
- (2) G-2 and part of section moved to bivouac at Fort Bragg.
- (3) Assistant G-2 and part of section left Maxton landed at Derby set up advance CP.

c. D Day.

- (1) Mission reports received at new CP at Mackall Airfield from Tactical Air Division.
- (2) Information received from Headquarters Task Force.
- (3) Intelligence net established with teams sent to 194 and 517.
- (4) Troy G-2 Team returned to CP.
- (5) Aberdeen Radar Team returned to CP.
- (6) G-2 and remainder of section arrived at Camp Mackall.
- (7) First prisoners captured by 194th received and evacuated to Fort Bragg.
- (8) Package of documents captured by 517th from Btry C, 446 AAA received at CP contained SOI and SOP 88th GI Morning Report, Sick Book and Duty Roster Btry C 446 AAA. Map template and marked maps.
- (9) Radio teams sent to points 134, 199 and Ranger Tower.
- (10) First information of main Red position received from CO 194th on his visit to CP.
- (11) Assistant G-2 and part of section moved to Advance CP.
- (12) Officer patrol sent to Red CP.

d. D+1.

- (1) Officer patrol reported back from Red CP. Went out again after reporting.
- (2) "S" Company assembled at Mackall Airfield.
- (3) Officer patrol reported back from Red CP with four prisoners and one $2\frac{1}{2}$ ton truck.
- (4) Jeep and radio patrols sent out to points 134, 199 and roads east thereof.

- (5) Visited S-2, 193d. Checked patrols of his I&R Platoon and informed him of situation to date, also gave information of Division patrols in his area.
- (6) Hemp and Biscoe Radar Teams checked into CP.
- (7) Moved to new CP 5 miles west of Aberdeen.
- (8) Cameron G-2 Team checked into CP.
- (9) 517th patrol checked into CP with location new Red CT CP and CP 1st Bn. 88th Gln Inf. Also information Red activity in Pinehurst.

e. D+2.

- (1) Assistant G-2 and part of section reported in from advance CP.
- (2) Final G-2 report sent via Air Support radio prior to termination of maneuver.

3. G-3.

a. D-1 - 2230 to 2400. All landings were accomplished as scheduled. Troops were assembling and moving to assigned missions.

b. D Day - 0001-2400.

- (1) All landings were accomplished as scheduled.
- (2) By 0045 the 1st and 3d Bn CTs of the 517th Prcnt Inf had captured Camp Mackall Airfield and the 1st Bn CT moved out on its pre-arranged mission.
- (3) 1st Bn. CT of the 194th Gln Inf was attacked en route to its pre-arranged defensive area west of Aberdeen.
- (4) 2d Bn. CT of the 517th Prcnt Inf was attacked northeast of Aberdeen.
- (5) That night it was decided to have the 194th CT make a coordinated attack the next morning on the Red force west of Aberdeen.
- (6) During the night the 2d Bn. CT, 517th was withdrawn to a position just east of Aberdeen.

c. D+1 - 0001-2400.

- (1) The 194th CT attacked early in the morning but found that the enemy had withdrawn.
- (2) The 2d Bn. CT of the 517th sent a strong patrol through Aberdeen but found the Reds had withdrawn.
- (3) The 3d Bn. CT of the 517th was withdrawn from the defense of the Camp Mackall Airfield and ordered to Division reserve in the vicinity of Pine Bluff.
- (4) The 193d CT arrived and was charged with the defense of the Airfield.
- (5) About 1000 the Division was notified by task force that it had accomplished its mission and that the enemy had withdrawn to Pinehurst. A new mission was then given to the Division to block the western exits of Pinehurst and to make a coordinated attack on the enemy in Pinehurst along with the 2d Division which would commence arriving at 1300.

- (5) Visited S-2, 193d. Checked patrols of his I&R Platoon and informed him of situation to date, also gave information of Division patrols in his area.
- (6) Hemp and Biscoe Radar Teams checked into CP.
- (7) Moved to new CP 5 miles west of Aberdeen.
- (8) Cameron G-2 Team checked into CP.
- (9) 517th patrol checked into CP with location new Red CT CP and CP 1st Bn. 88th Gli Inf. Also information Red activity in Pinehurst.

e. D+2.

- (1) Assistant G-2 and part of section reported in from advance CP.
- (2) Final G-2 report sent via Air Support radio prior to termination of maneuver.

3. G-3.

a. D-1 - 2230 to 2400. All landings were accomplished as scheduled. Troops were assembling and moving to assigned missions.

b. D Day - 0001-2400.

- (1) All landings were accomplished as scheduled.
- (2) By 0045 the 1st and 3d Bn CTs of the 517th Prcht Inf had captured Camp Mackall Airfield and the 1st Bn CT moved out on its pre-arranged mission.
- (3) 1st Bn. CT of the 194th Gli Inf was attacked en route to its pre-arranged defensive area west of Aberdeen.
- (4) 2d Bn. CT of the 517th Prcht Inf was attacked northeast of Aberdeen.
- (5) That night it was decided to have the 194th CT make a coordinated attack the next morning on the Red force west of Aberdeen.
- (6) During the night the 2d Bn. CT, 517th was withdrawn to a position just east of Aberdeen.

c. D+1 - 0001-2400.

- (1) The 194th CT attacked early in the morning but found that the enemy had withdrawn.
- (2) The 2d Bn. CT of the 517th sent a strong patrol through Aberdeen but found the Reds had withdrawn.
- (3) The 3d Bn. CT of the 517th was withdrawn from the defense of the Camp Mackall Airfield and ordered to Division reserve in the vicinity of Pine Bluff.
- (4) The 193d CT arrived and was charged with the defense of the Airfield.
- (5) About 1000 the Division was notified by task force that it had accomplished its mission and that the enemy had withdrawn to Pinehurst. A new mission was then given to the Division to block the western exits of Pinehurst and to make a coordinated attack on the enemy in Pinehurst along with the 2d Division which would commence arriving at 1300.

- (6) Plans for accomplishing this mission were drawn up. The 193d CT was ordered to move north to an assembly position 4 miles south of West End. The 194th CT and 517th CT were ordered to move to positions west of Vina Vista for an attack the following morning. The attack was to move north astride Horse Creek until it reached Linden Road just west of Pinehurst. The 194th CT was then to attack east with its left on Linden Road and the 517th with its right on Linden Road. The 193d CT was ordered to move on Pinehurst at daylight.

d. D+2 - 0001-2400.

- (1) The attack jumped off as scheduled.
- (2) The 193d CT was held up at a bridge which had been blown up about a mile and a half east of their assembly area. They were then ordered to move to another assembly area about 3 miles north of the blown out bridge prepared to attack the enemy right flank on order from Division.
- (3) At 1030 the maneuver was ~~called off~~ ^{COMPLETED}.

4. G-4. The Medical Section of Division Headquarters is without any means of transportation. Transportation was obtained from the Medical Company, but inasmuch as they too are short in organic transportation, it worked a considerable hardship on the Medical Company. It is believed that the present Medical Company is too small to evacuate an organization the size of an Airborne Division. Communications between Medical installations were nil. Radio communication between all Medical units is strongly recommended. At present no facilities for feeding patients are provided. The Medical Company requires cover for patients it is unable to evacuate. Two ward tents per platoon are recommended. It is believed that an increase in both officer and enlisted personnel of the Medical Company is required to provide adequately for this Division.

SECTION VII - CONCLUSIONS

1. Troop Carrier. The 60th Troop Carrier Wing was highly cooperative in this maneuver and did an excellent job considering their limited experience and training. In several instances gliders had not been inspected as tie-down rings were missing. It is believed that a thorough check by air crews should be made prior to the time of loading.

2. Parachute Infantry. Should be used in mass jumps rather than dropping by single plane loads. Should have glider-landed transportation.

3. Parachute Field Artillery. Is practical with the use of glider-landed transportation. Howitzers of Parachute Field Artillery if landed in gliders should be landed on same or adjacent fields to those on which parachute elements land. To land them a distance of three or four miles away is an error. Howitzers should be landed by parachute if they cannot be glided in close to the parachute elements.

4. Glider Infantry. It is believed that early morning or daylight landings are far more practical than night landings.

5. Glider Field Artillery. The glider field artillery proved satisfactory.

6. Engineer Battalion. Was brought in too late to accomplish any specific engineer missions.

7. Antiaircraft Battalion. The AA AT Bn. is too cumbersome. It takes too many gliders and/or planes to move it by air. A light AA mount is a necessity.

8. Medical Company. Inadequate for its present task.

9. Signal Company. Present equipment is not satisfactory for operation from the forward CP to the rear CP in inclement weather. The SCR-499 which was loaded into a glider proved too cumbersome. It is incapable of being towed from the glider landing field to a CP location. This equipment should be placed in a jeep and trailer. Practically all the SCR-284's failed to function due to the wet weather. A system of weather-proofing must be provided if an Airborne Division is to operate in all types of weather.

10. Ordnance Company. Satisfactory. Additional men should be attached for loading and unloading.

11. Quartermaster Company. It is believed that a 100% increase in the number of authorized 1/4 ton trailers is required. This Company was augmented by approximately 56 men from the Division Band. It is believed that 50 additional men should be attached for the unloading of air-landed Serials, particularly supplies in the forward area.

12. Division Headquarters and Headquarters Company. This unit is capable of functioning under present Tables of Organization.

13. Provisional Parachute Maintenance Company. This unit, organized in this Division, consists of 84 Riggers, 2 Officers and 1 Warrant Officer. The personnel consists of the maintenance personnel of the 517th Parachute Infantry, the 460th Parachute Field Artillery Battalion and C Company of the 139th Airborne Engineer Battalion. This organization packed all personnel and equipment parachutes and retrieved same from the various jump fields.

14. Miscellaneous.

a. It is believed that a better appreciation of the handling of weather forecasts should be made. The flying of operational weather aircraft well outside of the area over which the operations is to take place would greatly assist in the prognostication of weather.

necessitated by weather conditions

b. The decision to withhold the exercise for one night resulted in the failure to test our resupply.

c. A replacement pool of materiel, critical items such as howitzers, radios, etc., should be maintained at the main base Departure Field. When it has been ascertained that a load containing one of these critical items has failed to arrive at its destination, immediate steps should be taken to replace the item in the first available Serial.

d. A Casual Detachment set-up, consisting of at least 2 officers, at the main base Departure Field is absolutely necessary for taking care of individuals who return by plane or glider. It is sometimes necessary to withhold this personnel for approximately 24 hours. The casual detachment should also be charged with the disposition of prisoners who are returned by plane from the combat area.

e. All L-4 Liaison planes should be prepared to be towed in in an early Serial.

SECTION VIII - RECOMMENDATIONS

1. Recommendations.

a. That Air Movement Tables be prepared and agreed upon between Ground Units and Troop Carrier Units at least 10 days prior to the initial operation.

b. Training of glider pilots to include actual work with ground units in the field.

c. That glider landings be made during hours of daylight where practicable.

d. The Parachute Maintenance Company should be organized as an integral part of the Division and be set up in the Tables of Organization.

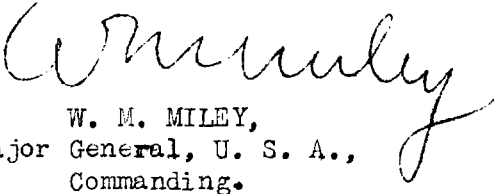
e. That the Antiaircraft Battalion be equipped with .50 caliber gun mounts capable of being dropped by parachute.

f. That in future operations, all gliders to be used should be spotted and inspected for tie-down rings and equipment prior to the hour of loading.

g. That the SCR-499 be developed so as to be capable of being carried in a jeep and trailer.

h. That the SCR-284 be weather-proofed.

i. Troop Carrier Headquarters and Airborne Division Headquarters should be adjacent to each other for all planning and subsequent operations.


W. M. MILEY,
Major General, U. S. A.,
Commanding.

3 Incls.

Incl. #1 - Air Movement Table

Incl. #2 - Plane and Glider Loading Tables

Incl. #3 - Memo, Hq 17th AB Div., sub "Supply"

4 January 1944.

MEMORANDUM:

SUPPLY - 17TH AIRBORNE DIVISION

1. To support elements of the Division engaged in the combat area for one day, the following tonnages according to classes of supply are necessary:

- | | |
|-----------------------|------------|
| a. Class I (C Ration) | 20.5 tons |
| b. Class II and IV | 7.0 tons |
| c. Class III | 12.8 tons |
| d. Class V | 194.5 tons |

2. Carried into the forward area from 2230 D-1 to 1930 D+1, when the Division will have closed, the following tonnages of supplies were included in organic unit loads and with Division trains:

- | | |
|--|------------|
| a. Class I
(One K ration and one D ration with troops
one C ration with Division Train
each man carries 24 halazone tablets,
sufficient to purify 3 gals of water) | 37.8 tons |
| b. Class II and IV
(Includes one blanket per individual -
carried by units) | 44.0 tons |
| c. Class III
(Each truck carries 20 gals of gas) | 24.8 tons |
| d. Class V
(Units carry approximately 195 tons.
Division train carries 1 U/P Artillery
Ammunition, plus small arms and special
ammunition) | 288.0 tons |

3. Immediately after the Division has completed entering the forward area, resupply missions under Task Force Control begin. Supplies are carried in serials of 40 planes each, payload of one plane is 4,400 lbs. By 1755 D+2 with the arrival of Serial 30 (10th resupply serial) a reserve of all classes of supply sufficient for one day over and above the current requirements of the Division will have been delivered on the forward airfield.

- To cover emergencies - rations, gasoline, water and ammunition sufficient for a Glider Battalion CT or a Parachute Bn CT packed for aerial delivery are available from Task Force Supply Base on 6 hours call.
- Sufficient parachutes (450) and aerial delivery equipment (50 A-5 containers, 450 rifle containers) to jump a Parachute Infantry Battalion are available from the Supply Base on call.

4. Unit trains consist of 266 $\frac{1}{4}$ ton trucks, 162 $\frac{1}{4}$ ton trailers and 188 hand carts M4A3 or M6A1. In Division trains are 45 $\frac{1}{4}$ ton trucks and 51 $\frac{1}{4}$ ton trailers - at forward airfield this latter transportation will be supplemented with 30 $\frac{1}{4}$ ton trailers from the 155th AB AA Bn. No transportation in excess of T/E is being used.

Charles W. Moester
CHARLES W. MOESTER
Lt Col, AC of S, G-4
17th AB Div

Incl # 3

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Camp Mackall, North Carolina.

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28 December 1943

UNIT 2nd Bn. CT. 517 P.I. SERIAL 4 TO GROUP 440

PLANE NO.	DEPART FROM	LOADINGS (General Description)
1	Pope	Btry. "B", 460th F.A. 9 men, 9 bundles
2	"	Btry. "B", 460th F.A. 9 men, 9 bundles
3	"	" " " " 8 men, 7 bundles
4	"	" " " " 8 men, 9 bundles
5	"	" " " " 8 men, 8 bundles.
6	"	" " " " 8 men, 6 bundles.
7	"	" " " " 8 men, 9 bundles.
8	"	" " " " 9 men, 8 bundles.
9	"	" " " " 9 men, 8 bundles.
10	"	" " " " 9 men, 9 bundles.
11	"	" " " " 9 men, 9 bundles.
12	"	" " " " 9 men, 8 bundles.
13	"	Mortar Platoon, Hq, 2nd Bn. 16 men, 2 bundles.
14	"	" " " " " 16 men, 2 bundles.
15	"	" " " " " 8 men,
16	"	Hq, Sec., 517th C. T., 14 men, 2 bundles.
17	"	" " " C. T., 14 men, 2 bundles.
18	"	"D" Company 16 men, 1 bundle
19	"	" " 16 men, 1 bundle
20	"	" " 16 men, 1 bundle.
21	"	" " 14 men, 1 bundle.
22	"	" " 14 men, 1 bundle
23	"	" " 14 men, 2 bundles.
24	"	" " 15 men, 1 bundle.
25	"	" " 15 men, 2 bundles.
26	"	Hq, 2nd Bn. 14 men, 2 bundles.
27	"	" " " 17 men, 2 bundles.
28	"	" " " 17 men, 2 bundles.
29	"	"E" Company, 16 men, 1 bundle.
30	"	" " 16 men, 1 bundle.
31	"	" " 16 men, 1 bundle.
32	"	" " 14 men, 1 bundle.
33	"	" " 14 men, 1 bundle.
34	"	" " 14 men, 2 bundle.
35	"	" " 15 men, 1 bundle.
36	"	" " 15 men, 1 bundle.
37	"	MG Platoon, 14 men, 1 bundle.
38	"	MG Platoon, 14 men, 2 bundles.
39	"	MG Platoon, 15 men, 2 bundles.
40	"	"F" Company, 16 men, 1 bundle.
41	"	" " 16 men, 1 bundle.
42	"	" " 16 men, 1 bundle.

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Camp Mackall, North Carolina.

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28 December 1943

UNIT 1 Bn CT (-) 517th SERIAL 6 TO GROUP 438

PLANE NO.	DEPART FROM	LOADINGS (General Description)		
1	Maxton	517 Ho. Sec.	7 men	1 Bundle
2	"	517 Ho. 1st Bn	7 "	2 Bundles
3	"	517 Ho. 1st Bn	7 "	2 Bundles
4	"	517 Co. B	7 "	1 bundle
5	"	517 Co. B	7 "	1 bundle
6	"	517 Co. B	7 "	1 bundle
7	"	517 Co. B	8 "	-
8	"	517 Co. B	7 "	1 bundle
9	"	517 Co. B	7 "	1 bundle
10	"	517 Co. B	8 "	-
11	"	517 Co. B	7 "	1 bundle
12	"	517 Co. B	8 "	-
13	"	517 Co. B	7 "	1 bundle
14	"	517 Co. B	7 "	1 bundle
15	"	517 Co. B	8 "	-
16	"	517 Co. B	7 "	1 bundle
17	"	517 Co. B	8 "	-
18	"	517 Co. B	7 "	1 bundle
19	"	517 Co. B	7 "	1 bundle
20	"	517 Co. B	8 "	-
21	"	517 Co. A	7 "	1 bundle
22	"	" "	7 "	1 bundle
23	"	" "	7 "	1 bundle
24	"	" "	8 "	-
25	"	" "	7 "	1 bundle
26	"	" "	7 "	1 bundle
27	"	" "	8 "	-
28	"	" "	7 "	1 bundle
29	"	" "	8 "	-
30	"	" "	7 "	1 bundle
31	"	" "	7 "	1 bundle
32	"	" "	8 "	-
33	"	" "	7 "	1 bundle
34	"	" "	8 "	-
35	"	" "	7 "	1 bundle
36	"	" "	7 "	1 bundle
37	"	460 Ft Btry A	7 "	2 bundles
38	"	" "	7 "	2 bundles
39	"	" "	7 "	2 bundles
40	"	" "	7 "	2 bundles
41	"	" "	7 "	2 bundles
42	"	" "	7 "	2 bundles

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Camp Mackall, North Carolina

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Div Hq (-)
1st Bn 194 CT (-)

28 December 1943

UNIT Arty 517 CT SERIAL 6 TO GROUP 438

GLIDER NO.	DEPART FROM	LOADINGS (General Description)		
100	Maxton	460 FA Btry A	4 men	1/2 ton truck
101	"	681 FA Btry A	10 "	1 handcart
102	"	460 FA Btry A	4 "	1/2 ton truck
103	"	194	14 "	150 lbs. Ammo.
104	"	460 FA Btry A	5 "	37 mm gun
105	"	194	14 "	150 lbs. ammo.
106	"	460 FA Btry A	5 "	37 mm. gun
107	"	194	14 "	150 lbs. ammo.
108	"	460 FA Btry A	4 "	1/2 ton truck
109	"	681 FA Btry A	4 "	1/2 ton truck
110	"	460 FA Btry A	4 "	1/2 ton truck
111	"	194	14 "	150 lbs. ammo.
112	"	460 FA Btry A	5 "	37 mm. gun
113	"	194	4 "	1/2 ton truck
114	"	460 FA Btry A	5 "	37 mm. gun
115	"	194	14 "	150 lbs. misc.
116	"	460 FA Btry C	4 "	1/2 ton truck
117	"	Div Hq	4 "	Truck & SCR 610
118	"	460 FA Btry C	4 "	1/2 ton truck
119	"	194	14 "	150 lbs. Misc.
120	"	460 FA Btry C	5 "	37 mm. gun
121	"	194	14 "	150 lbs. Misc.
122	"	460 FA Btry C	5 "	37 mm. gun
123	"	Div Hq	10 "	-
124	"	460 FA Btry C	4 "	1/2 ton truck
125	"	194	14 "	150 lbs. ammo.
126	"	460 FA Btry C	4 "	1/2 ton truck
127	"	194	14 "	150 lbs. ammo.
128	"	460 FA Btry C	5 "	37 mm. gun
129	"	681 FA Btry A	7 "	1/2 ton trailer
130	"	460 FA Btry C	5 "	37 mm. gun
131	"	194	14 "	one 610 Radio one SCR 300
132	"	Div Hq	12 "	-
133	"	194	14 "	150 lbs. misc.
134	"	194	14 "	150 lbs. misc.
135	"	194	14 "	150 lbs. misc.
136	"	194	14 "	150 lbs. misc.
137	"	194	14 "	150 lbs. misc.
138	"	194	14 "	150 lbs. misc.
139	"	194	14 "	150 lbs. mortar ammo.
140	"	194	4 "	1/2 ton truck
141	"	681 FA Btry A	4 "	1/2 ton truck

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Div. Hq. (-)
UNIT 1st Bn 194 CT(-) Arty 517 CT SERIAL 5 (contd) TC GROUP 433

GLIDER NO.	DEPART FROM	LOADINGS (General Description)		
142	Maxton	Div. Hq.	4 men	truck, SCR 284
143	"	194	14 "	150lbs. misc. & amm.
144	"	194	14 "	150 lbs. misc. & amm.
145	"	194	14 "	150 lbs. mortar amm.
146	"	194	8 "	A T gun
147	"	194	10 "	2 handcarts & amm.
148	"	194	14 "	150 lbs. misc.
149	"	681 FA A Btry	7 "	1/4 ton trailer
150	"	194	4 "	1/4 ton truck
151	"	194	14 "	150 lbs. mortar amm.
152	"	194	14 "	150 lbs. misc. & amm.
153	"	194	14 "	150 lbs. misc. & amm.
154	"	Div. Hq.	4 "	1 SCR 499
155	"	194	11 "	2 handcarts & mortar amm.
156	"	194	8 "	A T gun
157	"	194	14 "	150 lbs. amm.
158	"	194	14 "	150 lbs. misc.
159	"	194	14 "	150 lbs. misc.
160	"	194	4 "	1/4 ton truck
161	"	681 FA A Btry	7 "	1/4 ton trailer
162	"	194	14 "	150 lbs. misc.
163	"	194	11 "	645 lbs. med. equip.
164	"	Div. Hq.	4 "	truck SCR 284
165	"	194	11 "	2 loaded handcarts
166	"	194	8 "	37 A T gun
167	"	194	4 "	1/4 ton truck
168	"	194	14 "	150 lbs. misc.
169	"	194	4 "	1/4 ton truck
170	"	194	4 "	1/4 ton truck
171	"	681 FA A Btry	5 "	75mm how.
172	"	194	11 "	1 handcart & amm.
173	"	194	4 "	1/4 ton truck
174	"	Div. Hq.	4 "	SCR 499
175	"	194	11 "	2 loaded handcarts
176	"	194	8 "	37mm AT gun
177	"	194	4 "	1/4 ton truck
178	"	194	14 "	150 lbs. misc.
179	"	194	7 "	1/4 ton trailer
180	"	194	14 "	150 lbs. misc.
181	"	681 FA A Btry	4 "	1/4 ton truck
182	"	194	11 "	1 loaded handcart
183	"	194	10 "	2 handcarts

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Camp Mackall, North Carolina

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28 December 1943

UNIT 3rd Bn CT (-) 517th SERIAL 7 TC GROUP 439

PLANE NO.	DEPART FROM	LOADINGS (General Description)		
1	Florence	Bn. Staff, 517	7 men	1 bundle
2	"	517 Co. G	7 "	1 bundle
3	"	" "	7 "	1 bundle
4	"	" "	6 "	1 bundle
5	"	" "	7 "	1 bundle
6	"	" "	4 "	1 bundle
7	"	" "	6 "	1 bundle
8	"	" "	7 "	1 bundle
9	"	" "	7 "	1 bundle
10	"	" "	5 "	None
11	"	" "	6 "	1 bundle
12	"	" "	6 "	None
13	"	" "	12 "	2 bundles
14	"	" "	13 "	1 bundle
15	"	" "	14 "	1 bundle
16	"	460 FA Btry C	14 "	1 bundle
17	"	" " "	14 "	1 bundle
18	"	" " "	14 "	1 bundle
19	"	" " "	14 "	1 bundle
20	"	517 Co. H	13 "	2 bundles
21	"	" "	15 "	2 bundles
22	"	" "	14 "	1 bundle
23	"	" "	13 "	2 bundles
24	"	" "	13 "	1 bundle
25	"	" "	11 "	2 bundles
26	"	" "	14 "	1 bundle
27	"	" "	12 "	1 bundle
28	"	517 Co. I	15 "	2 bundles
29	"	" "	11 "	2 bundles
30	"	" "	14 "	1 bundle
31	"	" "	12 "	2 bundles
32	"	" "	11 "	1 bundle
33	"	" "	14 "	2 bundles
34	"	" "	12 "	1 bundle
35	"	" "	13 "	1 bundle
36	"	517 Regt. Hq. Co.	14 "	1 bundle
37	"	" " " "	14 "	1 bundle
38	"	" " " "	14 "	1 bundle
39	"	" " " "	14 "	1 bundle
40	"	" " " "	14 "	1 bundle
41	"	" " " "	14 "	3 bundles
42	"	517 3d Bn Hq.	14 "	3 bundles

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UNIT Btrys B & C 155 - Elem. 194 CTSERIAL

TO GROUP

GLIDER NO.	DEPART FROM	LOADINGS (General Description)		
200	Florence	681 FA A Btry	4 men	$\frac{1}{4}$ ton truck
201	"	155 Btry B	3 "	$\frac{1}{4}$ ton truck
202	"	155 Btry B	3 "	$\frac{1}{4}$ ton truck radio
203	"	155 Btry B	5 "	37 mm gun
204	"	681 FA A Btry	4 "	$\frac{1}{4}$ ton truck
205	"	681 FA A Btry	4 "	$\frac{1}{4}$ ton truck
206	"	155 Btry C	5 "	37mm gun
207	"	155 Btry B	5 "	37mm gun
208	"	681 FA A Btry	5 "	75mm how.
209	"	155 Btry B	6 "	37mm gun
210	"	155 Btry C	5 "	37mm gun
211	"	155 Btry B	5 "	37mm gun
212	"	681 FA A Btry	5 "	75mm how.
213	"	681 FA A Btry	5 "	75mm how.
214	"	155 Btry C	3 "	$\frac{1}{4}$ ton truck
215	"	155 Btry B	3 "	$\frac{1}{4}$ ton truck
216	"	155 Btry C	2 "	$\frac{1}{4}$ ton truck
217	"	155 Btry B	2 "	$\frac{1}{4}$ ton truck
218	"	155 Btry B	3 "	$\frac{1}{4}$ ton truck
219	"	681 FA A Btry	4 "	$\frac{1}{4}$ ton truck
220	"	155 Btry C	3 "	$\frac{1}{4}$ ton truck
221	"	155 Btry B	5 "	$\frac{1}{4}$ ton truck
222	"	155 Btry C	6 "	$\frac{1}{4}$ ton truck 1 handcart
223	"	681 FA A Btry	4 "	$\frac{1}{4}$ ton truck
224	"	155 Btry C	5 "	37mm gun
225	"	155 Btry B	6 "	37mm gun
226	"	155 Btry C	5 "	37mm gun
227	"	681 FA A Btry	5 "	$\frac{1}{4}$ ton truck
228	"	681 FA A Btry	5 "	75mm how.
229	"	155 B Btry	5 "	37mm gun
230	"	155 C Btry	2 "	$\frac{1}{4}$ ton truck
231	"	681 FA A Btry	5 "	75mm how.
232	"	155 C Btry	3 "	$\frac{1}{4}$ ton truck
233	"	155 B Btry	3 "	$\frac{1}{4}$ ton truck
234	"	155 C Btry	3 "	$\frac{1}{4}$ ton truck
235	"	681 FA A Btry	8 "	Equip.
236	"	155 B Btry	2 "	$\frac{1}{4}$ ton truck
237	"	155 B Btry	2 "	$\frac{1}{4}$ ton truck
238	"	155 C Btry	6 "	37mm gun
239	"	681 FA A Btry	4 "	$\frac{1}{4}$ ton truck
240	"	155 C Btry	5 "	37mm gun
241	"	155 B Btry	4 "	2 secoters 2 handcarts

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UNIT 194th CT (-1st Bn CT) SERIAL 9 TC GROUP 438

GLIDER NO.	DEPART FROM	LOADINGS (General Description)		
300	Maxton	194	13 men	Misc. & Amm.
301	"	194	4 men	$\frac{1}{4}$ ton truck
302	"	194	13 men	Misc. & Amm.
303	"	681 FA Bn, B Btry	10 men	Misc. & Equip.
304	"	194	12 men	Misc. & Amm.
305	"	194	10 men	2 handcarts
306	"	194	12 men	Misc. & Amm.
307	"	681 FA Bn, B Btry	4 men	$\frac{1}{4}$ ton truck
308	"	194	13 men	Misc. & Amm.
309	"	194	10 men	2 handcarts
310	"	194	13 men	Misc. & Amm.
311	"	681 FA Bn, B Btry	7 men	$\frac{1}{4}$ ton trailer
312	"	194	9 men	Misc. & Amm.
313	"	194	4 men	$\frac{1}{4}$ ton truck
314	"	194	9 men	Misc. & Amm.
315	"	681 FA Bn B Btry	4 men	$\frac{1}{4}$ ton truck
316	"	194	14 men	Misc. & Amm.
317	"	194	4 men	$\frac{1}{4}$ ton truck
318	"	194	14 men	Misc. & Amm.
319	"	681 FA Bn B Btry	5 men	75 mm. how.
320	"	194	12 men	Misc. & Amm.
321	"	194	4 men	$\frac{1}{4}$ ton truck
322	"	194	12 men	Misc. & Amm.
323	"	681 FA Bn B Btry	4 men	$\frac{1}{4}$ ton truck
324	"	194	13 men	Misc. & Amm.
325	"	194	4 men	$\frac{1}{4}$ ton truck
326	"	194	13 men	Misc. & Amm.
327	"	681 FA Bn B Btry	5 men	75 mm. how.
328	"	194	14 men	Misc. & Amm.
329	"	194	7 men	$\frac{1}{4}$ ton trailer
330	"	194	14 men	Misc. & Amm.
331	"	681 FA Bn B Btry	4 men	$\frac{1}{4}$ ton truck
332	"	194	14 men	150 lbs. Misc.
333	"	194	7 men	$\frac{1}{4}$ ton trailer
334	"	194	14 men	150 lbs. Misc.
335	"	681 FA Bn B Btry	5 men	75 mm. how.
336	"	194	14 men	150 lbs. Misc.
337	"	194	7 men	$\frac{1}{4}$ ton trailer
338	"	194	14 men	150 lbs. Misc.
339	"	681 FA Bn B Btry	4 men	$\frac{1}{4}$ ton truck
340	"	194	13 men	Misc. & Amm.
341	"	194	7 men	$\frac{1}{4}$ ton trailer

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UNIT 194th CT (-1st Bn CT) SERIAL 9 TO GROUP 438

GLIDER NO.	DEPART FROM	LOADINGS (General Description)		
342	Maxton	194	13 men	Misc. & Amm.
343	"	681 FA B Btry	5 "	75mm how.
344	"	194	3 "	37mm AT gun
345	"	194	11 "	2 handcart
346	"	194	4 "	1/2 ton truck
347	"	681 FA B Btry	4 "	1/2 ton truck
348	"	194	8 "	37mm gun
349	"	194	11 "	2 handcart
350	"	194	7 "	1/2 ton truck
351	"	681 FA B Btry	5 "	75 mm how.
352	"	194	8 "	37 mm gun
353	"	194	11 "	2 handcart
354	"	194	8 "	37mm gun
355	"	681 FA B Btry	4 "	1/2 ton truck
356	"	Hq 681 FA	4 "	1/2 ton truck
357	"	194	10 "	2 handcart
358	"	194	13 "	Misc. & Amm.
359	"	681 FA B Btry	5 "	75 mm how.
360	"	Hq 681 FA	4 "	1/2 ton truck
361	"	194	11 "	2 handcart
362	"	194	12 "	Misc. & Amm.
363	"	681 FA B Btry	3 "	1/2 ton truck
364	"	Hq 681 FA	4 "	1/2 ton truck
365	"	194	11 "	2 handcart
366	"	194	13 "	Misc. & Amm.
367	"	681 FA B Btry	7 "	1/2 ton trailer
368	"	Hq 681 FA	4 "	1/2 ton truck
369	"	194	11 "	1 handcart
370	"	194	9 "	Misc. & Amm.
371	"	681 FA B Btry	3 "	1/2 ton truck
372	"	Hq 681 FA	7 "	1/2 ton trailer
373	"	194	11 "	1 handcart
374	"	194	14 "	Misc. & Amm.
375	"	681 FA B Btry	7 "	1/2 ton truck
376	"	Hq 681 FA	7 "	1/2 ton trailer
377	"	194	11 "	1 handcart
378	"	194	12 "	Misc. & Amm.
379	"	681 FA B Btry	4 "	1/2 ton truck
380	"	Hq 681 FA	7 "	1/2 ton trailer
381	"	194	11 "	1 handcart
382	"	194	13 "	Misc. & Amm.
383	"	681 FA B Btry	10 "	1 handcart

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UNIT Grd Bn. 5-1 BT SERIAL 10 TC GROUP 439

PLANE NO.	DEPART FROM	LOADINGS	
		(General Description)	
1	Maxton	Btry. B, 462 F. A.	8 men, -6 Para-Racks-1 Door Bundle
2	"	" " " "	8 men, -6 Para-Racks-3 Door Bundle Gun
3	"	" " " "	7 men, -6 Para-Racks-2 Door Bundle
4	"	" " " "	7 men, -6 Para-Racks-2 Door Bundle
5	"	" " " "	8 men, -6 Para-Racks-3 Door Bundle Gun
6	"	" " " "	8 men, -6 Para-Racks-1 Door Bundle
7	"	" " " "	7 men, -6 Para-Racks-2 Door Bundle
8	"	" " " "	8 men, -6 Para-Racks-3 Door Bundle Gun
9	"	" " " "	8 men, -6 Para-Racks-2 Door Bundles
10	"	" " " "	8 " 6 " 1 "
11	"	" " " "	9 " 6 " 3 " Gun.
12	"	" " " "	8 " 6 " 2 "
13	"	G Co. 541st	17 men (co. Rifle Squad) 1 Door Bundle
14	"	" 14 "	(Rifle Squad) 1 " "
15	"	" 16 "	(Mortar Sq. Arty. Lias) 2 Door Bundle
16	"	" 14 "	(Rifle Squad) 1 Door Bundle
17	"	" 15 "	(Rifle Squad) 1 " "
18	"	" 12 "	(2 Mortar Sq) 2 " "
19	"	" 15 "	(Rifle Squad) 1 " "
20	"	" 16 "	(Rifle Squad) 2 " "
21	"	Hq. Co. " 14 "	(Bn. Staff) 0 " "
22	"	3rd. Bn. " 15 "	(Commun. Plat) 2 " "
23	"	" 15 "	(IMG Squad) 2 " "
24	"	" 15 "	(IMG Squad) 2 " "
25	"	" 15 "	(81MM Mort. Sq) 1 " "
26	"	" 15 "	(81MM Mort. Sq) 1 " "
27	"	" 13 "	(Demolitions Sq) 1 " "
		H Company.	
28	"	" 15 "	(Rifle Sq) 1 " "
29	"	" 15 "	(Rifle Sq) 1 " "
30	"	" 11 "	(Mortar Sq) 2 " "
31	"	" 13 "	(Rifle Sq.) 1 " "
32	"	" 13 "	(Rifle Sq.) 1 " "
33	"	" 13 "	(Mortar Sq) 2 " "
34	"	" 13 "	(Rifle Sq) 1 " "
35	"	" 15 "	(Rifle Sq) 1 " "
36	"	I Co. " 13 "	(Rifle Sq) 1 " "
37	"	" 13 "	(Rifle Sq) 1 " "
38	"	" 12 "	(Mortar Sq) 2 " "
39	"	" 13 "	(Rifle Sq) 1 " "
40	"	" 13 "	(Rifle Sq) 1 " "

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17th Div F.C.O.-MP's-G-4 Rep.-Div Hq & Div Hq Fighter Pln.
UNIT 517 Sig Co-1st Pln 224 Med SERIAL 11 TO GRP 440
194 CT

PLANE NO.	DEPART FROM	LOADINGS (General Description)
1	Pope Field	Field Control, Div. Hq.-7 men--1 1/4 ton truck
2	" "	Field Control, Div. Hq.-7 men--1 1/4 ton truck
3	" "	Field Control, Div. Hq.-18 men--No Equipment
4	" "	M.P. Control Group - 8 men--1 1/4 ton truck
5	" "	M.P. Control Group - 12 men--1 1/4 ton trailer & 1 ^{Mtr.} cycle
6	" "	M.P. Control Group - 8 men--1 1/4 ton truck
7	" "	M.P. Control Group - 12 men--1 1/4 ton trailer & 1 ^{Mtr.} cycle
8	" "	M.P. Control Group - 8 men--1 1/4 ton truck & 1 tool set (Mech)
9	" "	M.P. Control Group & 6 men Div Hq.-9 men-1 ^{Small} Utility Box
10	" "	Div. Hq.--8 men--1 1/4 ton truck & 1 Stereoscope
11	" "	Div. Hq.--8 men--1 1/4 ton truck
12	" "	Div. Hq.--12 men--No Equipment
13	" "	Hq. Co.--8 men--1 1/4 ton truck
14	" "	Hq. Co.--7 men--1 1/4 ton truck & 1 tool set (Mech.)
15	" "	Hq. Co.--12 men--1 1/4 ton trailer & 10 Water Cans
16	" "	Hq. Co.--7 men--1 1/4 ton truck & 1 Large Utility Box
17	" "	517 Sig--7 men--1/4 ton truck w/wire equip.
18	" "	517 Sig--7 men--1/4 ton trailer w/wire equip.
19	" "	517 Sig--6 men--1/4 ton truck w/wire equip.
20	" "	517 Sig--10 men--1/4 ton trailer w/wire equip.
21	" "	517 Sig--13 men--1/4 ton trailer w/wire equip.
22	" "	517 Sig--10 men--1/4 ton trailer w/radio equip.
23	" "	517 Sig--7 men--1/4 ton truck w/radio equip.
24	" "	517 Sig--7 men--1/4 ton truck w/M.C. equip.
25	" "	224 Med--10 men--trailer, litters, blankets, chests
26	" "	224 Med--9 men--trailer, litters, blankets, chests
27	" "	224 Med--4 men--truck & trailer, blankets, crockery
28	" "	224 Med--4 men--truck & trailer, blankets
29	" "	224 Med--6 men--truck, chest, litters, misc.
30	" "	224 Med--6 men--truck, wall tent, misc.
31	" "	224 Med--5 men--truck, chest, litters, tent
32	" "	224 Med--4 men--truck & trailer, chest, litters, misc.
33	" "	224 Med--4 men--truck & trailer, chest, blankets
34	" "	194 4 men--1/4 ton truck w/trailer & amm.
35	" "	194 4 men--1/4 ton truck w/trailer & amm.
36	" "	194 4 men--1/4 ton truck w/trailer & amm.
37	" "	194 4 men--1/4 ton truck w/trailer & amm.
38	" "	194 4 men--1/4 ton truck w/trailer & amm.
39	" "	194 4 men--1/4 ton truck w/trailer & amm.
40	" "	194 13 men--4 handcarts

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UNIT Btrys D, E & F 155 SERIAL 12 TC GROUP 441

PLANE NO.	DEPART FROM	LOADINGS (General Description)		
1	Lumberton	Btry D 155	5 men	$\frac{1}{2}$ ton truck
2	"	" " "	5 "	$\frac{1}{2}$ ton truck
3	"	" " "	5 "	$\frac{1}{2}$ ton truck
4	"	" " "	5 "	$\frac{1}{2}$ ton truck
5	"	" " "	5 "	$\frac{1}{2}$ ton truck
6	"	" " "	5 "	$\frac{1}{2}$ ton truck
7	"	" " "	6 "	2 trailers w/MGs
8	"	" " "	6 "	2 trailers w/MGs
9	"	" " "	6 "	2 trailers w/MGs
10	"	" " "	6 "	2 trailers w/MGs
11	"	" " "	6 "	2 trailers w/MGs
12	"	" " "	6 "	2 trailers w/MGs
13	"	" " "	0 "	35 boxes ammo.
14	"	Btry E "	5 "	$\frac{1}{2}$ ton truck
15	"	" " "	5 "	$\frac{1}{2}$ ton truck
16	"	" " "	5 "	$\frac{1}{2}$ ton truck
17	"	" " "	5 "	$\frac{1}{2}$ ton truck
18	"	" " "	5 "	$\frac{1}{2}$ ton truck
19	"	" " "	5 "	$\frac{1}{2}$ ton truck
20	"	" " "	6 "	2 trailers w/MGs
21	"	" " "	6 "	2 trailers w/MGs
22	"	" " "	6 "	2 trailers w/MGs
23	"	" " "	6 "	2 trailers w/MGs
24	"	" " "	6 "	2 trailers w/MGs
25	"	" " "	6 "	2 trailers w/MGs
26	"	" " "	0 "	35 boxes ammo.
27	"	Btry F "	5 "	$\frac{1}{2}$ ton truck
28	"	" " "	5 "	$\frac{1}{2}$ ton truck
29	"	" " "	5 "	$\frac{1}{2}$ ton truck
30	"	" " "	5 "	$\frac{1}{2}$ ton truck
31	"	" " "	5 "	$\frac{1}{2}$ ton truck
32	"	" " "	5 "	$\frac{1}{2}$ ton truck
33	"	" " "	6 "	2 trailers w/MGs
34	"	" " "	6 "	2 trailers w/MGs
35	"	" " "	6 "	2 trailers w/MGs
36	"	" " "	6 "	2 trailers w/MGs
37	"	" " "	6 "	2 trailers w/MGs
38	"	" " "	6 "	2 trailers w/MGs
39	"	" " "	0 "	35 boxes ammo.
40	"	Bn Hq "	7 "	$\frac{1}{2}$ ton truck

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G - 4
UNIT 193 Gli. Inf.

SERIAL

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TC GROUP 439

PLANE NO.	DEPART FROM	LOADINGS (General Description)		
1	Maxton	193 I & R	7 men	$\frac{1}{2}$ ton truck
2	"	193 I & R	7 "	$\frac{1}{2}$ ton truck
3	"	193 I & R	7 "	$\frac{1}{2}$ ton truck
4	"	193 Co A	16 "	60 mm. Mortar & Ammo.
5	"	193 Co A	12 "	LMG, handcart w/ammo.
6	"	193 Co A	12 "	LMG, handcart w/ammo.
7	"	193 Co A	12 "	Ammo. & Water cans
8	"	193 Co A	15 "	2-60 mm. Mortars & Ammo.
9	"	193 Co A	16 "	Ammo.
10	"	1st Bn Hq	6 "	$\frac{1}{2}$ ton truck
11	"	1st Bn Hq	14 "	handcart w/ammo.
12	"	1st Bn Hq	6 "	$\frac{1}{2}$ ton truck
13	"	1st Bn Hq	14 "	2 handcarts w/ammo. & wire
14	"	1st Bn Hq	11 "	2 handcarts w/ammo. CP equip
15	"	1st Bn Hq	11 "	2 " " "
16	"	1st Bn Hq	11 "	3 handcarts w/ammo, CP equip & Mortar
17	"	1st Bn Hq	7 "	$\frac{1}{2}$ ton trailer w/ammo. handcart w/ammo.
18	"	Hq 680	6 "	$\frac{1}{2}$ ton truck
19	"	Hq 680	10 "	$\frac{1}{2}$ ton trailer
20	"	Hq 680	10 "	$\frac{1}{2}$ ton trailer
21	"	411 QM	17 "	4-5 gal. cans oil
22	"	411 QM	17 "	4-5 gal. cans oil
23	"	411 QM	17 "	4-5 gal. cans oil
24	"	411 QM	17 "	4-5 gal. cans oil
25	"	411 QM	5 "	$\frac{1}{2}$ ton truck 1-50 Cal. MG $\frac{1}{2}$ ton trailer 1-Bazooka
26	"	411 QM	0 "	110 boxes "C" Rations
27	"	411 QM	0 "	110 boxes "C" Rations
28	"	411 QM	0 "	110 boxes "C" Rations
29	"	411 QM	0 "	110 boxes "C" Rations
30	"	411 QM	0 "	110 boxes "C" Rations
31	"	411 QM	0 "	110 boxes "C" Rations
32	"	411 QM	0 "	110 boxes "C" Rations
33	"	411 QM	0 "	110 boxes "C" Rations
34	"	411 QM	0 "	110 boxes "C" Rations
35	"	411 QM	0 "	110 boxes "C" Rations
36	"	717 Ord	0 "	Ammo.
37	"	717 Ord	0 "	Ammo.
38	"	717 Ord	0 "	Ammo.
39	"	717 Ord	0 "	Ammo.
40	"	717 Ord	0 "	Ammo.

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UNIT C.T. 193 SERIAL 15 TC GROUP 440

PLANE NO.	DEPART FROM	LOADINGS (General Description)
Plane No. 1	Pope	B - 193 - 12 men, LMG, Hand cart, w/Ammo.
Plane No. 2	"	B - 193 - 15 men, LMG, Hand cart, w/Ammo.
Plane No. 3	"	B - 193 - 12 men, Ammo. & w/cans
Plane No. 4	"	B - 193 - 15 men, Ammo. & 2-60 mortars
Plane No. 5	"	B - 193 - 16 men, Ammo.
Plane No. 6	"	B - 193 - 6 men, 1- $\frac{1}{2}$ ton trk.
Plane No. 7	"	B - 193 - 14 men, Hand cart, w/Ammo.
Plane No. 8	"	B - 193 - 6 men, 1- $\frac{1}{2}$ ton trk.
Plane No. 9	"	B - 193 - 14 men, 2 Hand carts, w/Ammo. & wire
Plane No. 10	"	C - 193 - 12 men, LMG, Hand cart, w/Ammo.
Plane No. 11	"	C - 193 - 15 men, LMG, Hand cart, w/Ammo.
Plane No. 12	"	C - 193 - 12 men, Ammo. w/cans
Plane No. 13	"	C - 193 - 15 men, Ammo. & 2-60 mortars
Plane No. 14	"	C - 193 - 16 men, Ammo.
Plane No. 15	"	C - 193 - 6 men, 1- $\frac{1}{2}$ ton trk.
Plane No. 16	"	C - 193 - 14 men, Hand cart, w/Ammo.
Plane No. 17	"	C - 193 - 6 men, 1- $\frac{1}{2}$ ton trk.
Plane No. 18	"	C - 193 - 14 men, 2 Hand carts, w/Ammo. & wire.
Plane No. 19	"	1st Bn. Hq., 12 men, Hand cart, w/Com. Equip.
Plane No. 20	"	1st Bn. Hq., 6 men, 1- $\frac{1}{2}$ ton trk. Hand cart w/Com. Eq
Plane No. 21	"	" " " 6 men 1- $\frac{1}{2}$ ton trk. Hand cart w/Com. Eq
Plane No. 22	"	" " " 12 men, 2 Hand carts w/Ammo.
Plane No. 23	"	" " " 14 men 2 Hand carts w/Ammo.
Plane No. 24	"	" " " 18 Men, Ammo.
Plane No. 25	"	" " " 9 men, 3 handcarts, w/Ammo.
Plane No. 26	"	" " " 6 men, 1 trlr., Handcart, Ammo.
Plane No. 27	"	" " " 10 men 1 trlr., Handcart, Ammo.
Plane No. 28	"	" " " 5 men, 1 Trlr., 2 Handcarts, Ammo.
Plane No. 29	"	" " " 6 men, 1 $\frac{1}{2}$ ton trk, w/med. Equip.
Plane No. 30	"	" " " 13 men, 1 trlr. w/med Equip.
Plane No. 31	"	" " " 6 men, 1 $\frac{1}{2}$ ton trk, Handcart, Ammo.
Plane No. 32	"	AT - 193, 8 men, 1-37mm Gun, Hand cart, Ammo.
Plane No. 33	"	" " 8 men, 1-37mm Gun, Hand cart, Ammo.
Plane No. 34	"	" " 8 men, 1-37mm Gun, Hand cart, Ammo.
Plane No. 35	"	" " 8 men, 1-37mm Gun, Hand cart, Ammo.
Plane No. 36	"	" " 6 men, 1 - $\frac{1}{2}$ ton trk., Ammo.
Plane No. 37	"	" " 6 men, 1 - $\frac{1}{2}$ ton trk., Ammo.
Plane No. 38	"	Hq. - 193, 6 men, 1- $\frac{1}{2}$ ton trk. Regt'l C.O.
Plane No. 39	"	" " 6 men, 1- $\frac{1}{2}$ ton trk. Handcart, S-3
Plane No. 40	"	" " 10 men, Handcart, w/Com. Equip. Ass't C.O.

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Camp Mackall, North Carolina

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UNIT 193 SERIAL 16 TC GROUP 441

PLANE NO.	DEPART FROM	LOADINGS (General Description)
Plane No. 1	Lumberton	A - 155 - 2 men, 1- $\frac{1}{2}$ ton trk, 37mm Gun, Com. Equip.
Plane No. 2	"	" " 2 men, 1- $\frac{1}{2}$ ton trk, 37mm Gun, Com. Equip.
Plane No. 3	"	" " 2 men, 1- $\frac{1}{2}$ ton trk, 37mm Gun, Com. Equip.
Plane No. 4	"	" " 2 men, 1- $\frac{1}{2}$ ton trk, 37mm Gun, Com. Equip.
Plane No. 5	"	" " 2 men, 1- $\frac{1}{2}$ ton trk, 37mm Gun, Com. Equip.
Plane No. 6	"	" " 2 men, 1- $\frac{1}{2}$ ton trk, 37mm Gun, Com. Equip.
Plane No. 7	"	" " 2 men, 1- $\frac{1}{2}$ ton trk, 37mm Gun, Com. Equip.
Plane No. 8	"	" " 2 men, 1- $\frac{1}{2}$ ton trk, 37mm Gun, Com. Equip.
Plane No. 9	"	" " 10 men, 2 Handcarts, Ammo. Com. Equip.
Plane No. 10	"	" " 10 men, 2 Handcarts, Ammo. Com. Equip.
Plane No. 11	"	" " 15 men, 2 Handcarts, Ammo. Com. Equip.
Plane No. 12	"	" " 15 men, 2 Handcarts, Ammo. Com. Equip.
Plane No. 13	"	A-680, 6 men, Trk, $\frac{1}{2}$ ton and SCR 610
Plane No. 14	"	A-680, 7 men, 75 MM How w/60 Rds.
Plane No. 15	"	A-680, 6 men, Trk, $\frac{1}{2}$ ton.
Plane No. 16	"	A-680, 6 men, trk, $\frac{1}{2}$ ton and SCR 610
Plane No. 17	"	A-680, 7 men, 75 MM How w/60 Rds.
Plane No. 18	"	Hq. 680, 6 men, Trk, $\frac{1}{2}$ ton and SCR 610
Plane No. 19	"	A-680, 7 men, 75 MM How w/60 Rds.
Plane No. 20	"	A-680, 6 men, Trk, $\frac{1}{2}$ ton, and SCR 610
Plane No. 21	"	A-680, 9 men, Trlr $\frac{1}{2}$ ton, and .50 CAL MG
Plane No. 22	"	A-680, 6 men, Trk, $\frac{1}{2}$ ton.
Plane No. 23	"	A-680, 7 men, 75 MM How w/60 Rds.
Plane No. 24	"	A-680, 5 men, Trk, $\frac{1}{2}$ ton and PL-35
Plane No. 25	"	A-680, 7 men, 75 MM How w/60 Rds.
Plane No. 26	"	A-680, 5 men, trk, $\frac{1}{2}$ ton and PL-35
Plane No. 27	"	A-680, 9 men, Trlr, $\frac{1}{2}$ ton and .50 Cal MG
Plane No. 28	"	A-680, 6 men, trk, $\frac{1}{2}$ ton.
Plane No. 29	"	A-680, 6 men, 180 rds 75 MM Arm.
Plane No. 30	"	A-680, 6 men, Trk, $\frac{1}{2}$ ton.
Plane No. 31	"	A-680, 6 men, 180 Rds 75 MM Arm.
Plane No. 32	"	A-680, 6 men, trk, $\frac{1}{2}$ ton and SCR 610
Plane No. 33	"	A-680, 7 men, 75 MM How w/60 Rds.
Plane No. 34	"	2nd Bn. 193, 5 S-2 Scouts, $\frac{1}{2}$ ton trk.
Plane No. 35	"	2nd Bn. 193, 7 men, HMG Squad - Ammo.
Plane No. 36	"	2nd Bn. 193, Bn. C.O., Ln. O., Rad. O., $\frac{1}{2}$ ton trk.
Plane No. 37	"	2nd Bn. 193, 13 men, HMG Squad, Scouts
Plane No. 38	"	2nd Bn. 193, 19 men, Riflemen - Co. D
Plane No. 39	"	2nd Bn. 193, 19 men, Riflemen - Co. D
Plane No. 40	"	2nd Bn. 193, 15 men, Riflemen & 60 mm Mortar Sqd. CoD.

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Camp Mackall, North Carolina

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UNIT 193 SERIAL 17 TO GROUP 440

PLANE NO.	DEPART FROM	LOADINGS (General Description)
Plane No. 1	Pope	2nd Bn. 193, Bn. Hq. Co. C.O. Adm. and 13 men.
Plane No. 2	"	2nd Bn. 193, 12 men, IMG Sqd. Ammo., Hq. Co.
Plane No. 3	"	2nd Bn. 193, Bn. Command. O. Wire Chief, 1/2 ton trk.
Plane No. 4	"	2nd Bn. 193, 6 men, Bn. Exec. O. 1/2 ton trk.
Plane No. 5	"	2nd Bn. 193, 10 men, 81mm Mortar Sqd., Plat. Ldr.
Plane No. 6	"	2nd Bn. 193, 10 men, 81mm Mortar Sqd., Sec. Sgt. Ammo.
Plane No. 7	"	2nd Bn. 193, 11 men, Hq. Co. Adm.
Plane No. 8	"	2nd Bn. 193, 10 men, 81mm Mortar Sqd., Plat. Sgt.
Plane No. 9	"	2nd Bn. 193, 10 men, 81mm Mortar Sqd., Sec. Sgt. Ammo.
Plane No. 10	"	2nd Bn. 193, 10 men, 81mm Mortar Sqd., Sec. Sgt. Ammo.
Plane No. 11	"	2nd Bn. 193, 6 men, Bn. S-4, 1/2 ton trlr. Ammo.
Plane No. 12	"	2nd Bn. 193, 10 men, Supply personnel, 1/2 ton trlr.
Plane No. 13	"	2nd Bn. 193, 10 men, Supply personnel, 1/2 ton trlr. Ammo.
Plane No. 14	"	2nd Bn. 193, 6 men, Medic - Bn. Surg. 1/2 ton truck
Plane No. 15	"	" " " , 13 men, Medic, Ass't Bn. Surg, 1/2 ton trlr.
Plane No. 16	"	" " " , 5 men, Bn. S-3, 1/2 ton truck
Plane No. 17	"	" " " 8 men, Co. C.O. Co. D, IMG Sqd.
Plane No. 18	"	" " " 8 men, Weapons Plat. Ldr, IMG Squad
Plane No. 19	"	" " " 13 men, Rifle Plat. leader & one Sqd.
Plane No. 20	"	" " " 10 men, Plat. Sgt., 2nd. Plat.
Plane No. 21	"	" " " 15 men, Weapons Plat. & Ammo.
Plane No. 22	"	" " " 12 men, Co. Executive Officer & Rifle Sqd
Plane No. 23	"	" " " 13 men, 1st Plat. leader Co. E, 1 rifle Sqd
Plane No. 24	"	" " " 13 men, Plat. Sgt., Rifle Sqd.
Plane No. 25	"	" " " 13 men, Sup. Sgt. - Rifle Sqd - 60mm Mort
Plane No. 26	"	" " " 8 men, Co. C.O., Co. E, IMG Squad.
Plane No. 27	"	" " " 8 men, Weapons Plat. Leader, IMG Squad
Plane No. 28	"	" " " 13 men, Rifle Plat. Leader & 1 Sqd.
Plane No. 29	"	" " " 13 men, Rifle Plat. Sgt., & 1 Sqd.
Plane No. 30	"	" " " 15 men, Wpns, Plat. Personnel and Equip.
Plane No. 31	"	" " " 13 men, Co. Exec. O. & 1 Rifle Sqd.
Plane No. 32	"	" " " Same as Co. E above.
Plane No. 33	"	" " " "
Plane No. 34	"	" " " "
Plane No. 35	"	" " " "
Plane No. 36	"	" " " "
Plane No. 37	"	" " " "
Plane No. 38	"	" " " "
Plane No. 39	"	" " " "
Plane No. 40	"	" " " "

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UNIT CT 193 SERIAL 18 TC GROUP 421

PLANE NO.	DEPART FROM	LOADINGS (General Description)			
1	Lumberton	2nd Bn 193	6 men	Hq Co Supply Sgt - Ammo. Sed	
2	"	" "	8 "	AT Plt. 37 AT Amm.	
3	"	" "	8 "	AT Plt. 37 AT Amm.	
4	"	" "	8 "	AT Plt. 37 AT Amm.	
5	"	" "	8 "	AT Plt. 37 AT Amm.	
6	"	" "	6 "	AT Plt. 37 AT Amm. 2 ton truck	
7	"	" "	6 "	AT Plt. 37 AT Amm. 2 ton truck	
8	"	Hqs 193	5 "	2 ton truck, personnel Regt '1 Ex.	
9	"	" "	10 "	1 tlr., personnel, Ser Co. CO	
10	"	" "	5 "	2 ton trk, personnel, Comm. O.	
11	"	" "	5 "	2 ton trk, w/med equip, personnel Regt '1 Surg.	
12	"	" "	10 "	1 tlr, w/ mod equip, personnel	
13	"	" "	10 "	1 tlr, w/comm. equip., personnel	
14	"	" "	13 "	Ammo. (Carbine & Grenades) person ^{el}	
15	"	" "	13 "	" " " "	
16	"	680 Btry	9 "	2 ton tlr. & .50 Cal. MG	
17	"	680 Hq Btry	6 "	2 ton trk. & SCR 610	
18	"	" "	6 "	2 ton trk.	
19	"	680 Btry B	6 "	2 ton trk & SCR 610	
20	"	" "	7 "	75 mm. how. w/60 rds.	
21	"	" "	6 "	2 ton truck	
22	"	" "	9 "	2 ton tlr. & .50 Cal MG	
23	"	" "	6 "	2 ton trk, & SCR 610	
24	"	" "	7 "	75 mm. how. w/60 rds.	
25	"	680 Hq	6 "	2 ton trk & SCR 610	
26	"	680 Btry B	7 "	75 mm. how w/60 rds.	
27	"	" "	6 "	2 ton trk & SCR 610	
28	"	" "	9 "	2 ton tlr, & .50 Cal MG	
29	"	" "	6 "	2 ton trk.	
30	"	" "	7 "	75 mm. how. w/60 rds.	
31	"	" "	5 "	2 ton trk. & RL 35	
32	"	" "	7 "	75 mm. how. w/60 rds.	
33	"	" "	5 "	2 ton trk. & RL 35	
34	"	" "	9 "	2 ton tlr. & .50 Cal. MG	
35	"	" "	6 "	2 ton trk.	
36	"	" "	6 "	180 rds 75 mm. ammo.	
37	"	" "	6 "	2 ton trk.	
38	"	" "	6 "	180 rds 75 mm. ammo.	
39	"	" "	6 "	2 ton trk. & SCR 610	
40	"	" "	7 "	75 mm how. w/60 rds.	

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G - 4
517 Sig Co
193

UNIT 2nd Pl. 224 Med Co SERIAL 19 TO GROUP 438

PLANE NO.	DEPART FROM	LOADINGS (General Description)		
1	Maxton	411 QM	2 men	$\frac{1}{4}$ ton trk. w/tlr. 19-5 gal. ^{cans} gas
2	"	" "	"	"
3	"	" "	"	"
4	"	" "	"	"
5	"	" "	"	"
6	"	" "	"	"
7	"	" "	"	"
8	"	" "	"	"
9	"	" "	"	"
10	"	" "	"	"
11	"	" "	"	"
12	"	" "	2 men	$\frac{1}{2}$ ton trk. w/tlr. tent, ^{gas cans} 19-5 gal
13	"	" "	2 "	1-50 cal MG, 2 bazookas, 8 tarps $\frac{1}{4}$ ton trk. w/tlr. 7-5 gal. ^{gas cans}
14	"	" "	2 "	$\frac{1}{2}$ ton trk. w/tlr. 19-5 gal. ^{cans} gas
15	"	" "	" "	"
16	"	717 Ord	0 men	Ammo.
17	"	"	"	"
18	"	"	"	"
19	"	"	"	"
20	"	"	"	"
21	"	"	"	"
22	"	"	"	"
23	"	"	"	"
24	"	"	"	"
25	"	"	"	"
26	"	517 Sig Co	4 men	Misc. & Equip.
27	"	Hq 680	5 "	$\frac{1}{2}$ ton truck & trailer
28	"	"	6 "	$\frac{1}{2}$ ton truck & SCR 694
29	"	"	11 "	$\frac{1}{2}$ ton trailer & CP Equip.
30	"	"	10 "	$\frac{1}{2}$ ton trailer
31	"	Med Co	5 "	$\frac{1}{2}$ ton truck & Misc.
32	"	"	5 "	$\frac{1}{2}$ ton truck & Misc.
33	"	"	5 "	$\frac{1}{2}$ ton truck & Misc.
34	"	"	5 "	$\frac{1}{2}$ ton truck & Misc.
35	"	"	6 "	Trailer, tent, blankets, chest
36	"	"	7 "	"
37	"	"	6 "	Trailer, blankets, chest, ^{litter} wheel
38	"	"	4 "	$\frac{1}{2}$ ton trk. w/tlr. Blankets, chest
39	"	"	4 "	"
40	"	"	4 "	$\frac{1}{2}$ ton trk. w/tlr. Blankets, Misc.

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UNIT G-4 139th Engr. SERIAL 20 TC GROUP 439

PLANE NO.	DEPART FROM	LOADINGS (General Description)			
1	Mexton	411 Qm	2 men	1/4 ton truck & trailer	5 gal. gas can
2	"	411 Qm	2 "	1/4 ton truck & trailer	19 5 gal. gas can
3	"	411 Qm	2 "	1/4 ton truck & trailer	19 5 gal. gas can
4	"	411 Qm	2 "	1/4 ton truck & trailer	19 5 gal. gas can
5	"	411 Qm	2 "	1/4 ton truck & trailer	19 5 gal. gas can
6	"	411 Qm	2 "	1/4 ton truck & trailer	19 5 gal. gas can
7	"	411 Qm	2 "	1/4 ton truck & trailer	19 5 gal. gas can
8	"	411 Qm	2 "	1/4 ton trk & trl.	1 50 gal. MG. bkz - tools
9	"	411 Qm	2 "	1/4 ton trk & trl.	1 50 gal. MG. bkz - tools
10	"	717 Ord	4 "	1/4 ton truck & trailer	
11	"	717 Ord	4 "	1/4 ton truck & trailer	
12	"	717 Ord	4 "	1/4 ton truck & trailer	
13	"	717 Ord	4 "	1/4 ton truck & trailer	
14	"	717 Ord	4 "	1/4 ton truck & trailer	
15	"	717 Ord	4 "	1/4 ton truck & trailer	
16	"	717 Ord	4 "	1/4 ton truck & trailer	
17	"	717 Ord	4 "	1/4 ton truck & trailer	
18	"	717 Ord	4 "	1/4 ton truck & trailer	
19	"	717 Ord	4 "	1/4 ton truck & trailer	
20	"	717 Ord	4 "	1/4 ton truck & trailer	
21	"	139 Engr	4 "	1/4 ton trk-SCR 284-hdcart-misc.	
22	"	139 Engr	5 "	1/4 ton trk-SCR 625-misc.	
23	"	139 Engr	4 "	1/4 ton truck-misc.	
24	"	139 Engr	3 "	1/4 ton trk w/trl.-med equip-misc.	
25	"	139 Engr	4 "	1/4 ton trk-7 boxes mines.-misc.	
26	"	139 Engr	4 "	1/4 ton trk-SCR 625-engr equip.	
27	"	139 Engr	3 "	1/4 ton tlr-27 bx mines-3 bx bng torp	
28	"	139 Engr	12 "	engr equip.	
29	"	139 Engr	11 "	engr. equip.	
30	"	139 Engr	5 "	1/4 ton trk-SCR 284-misc.	
31	"	139 Engr	9 "	1/4 ton tlr-explosives-misc.	
32	"	139 Engr	4 "	1/4 ton trk-SCR 300-SCR 625-misc.	
33	"	139 Engr	10 "	1/4 ton tlr-hdcart-engr equip.	
34	"	139 Engr	11 "	1/4 ton tlr-engr & misc. equip.	
35	"	139 Engr	10 "	1/4 ton tlr-hdcart- engr & misc. equip.	
36	"	139 Engr	6 "	SCR 300-SCR 625-hdcart-TNT-misc.	
37	"	139 Engr	11 "	1/4 ton tlr-hdcart- engr & misc. equip.	
38	"	139 Engr	10 "	1/4 ton tlr-hdcart- engr & misc. equip.-TNT	
39	"	139 Engr	5 "	1/4 ton trk-SCR 625-torp- engr & misc. equip	
40	"	139 Engr	8 "	1/4 ton tlr-mines-TNT- engr & misc. equip.	

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UNIT G-4 SERIAL 21 TO GROUP 439

PLANE NO.	DEPART FROM	LOADINGS	
		(Men)	(General Description)
1	Maxton	717th Ord - 4	- 1 ton truck & Trl.
2	"	717th Ord - 4	- 1 ton truck & Trl.
3	"	717th Ord - 4	- 1 ton truck & Trl.
4	"	717th Ord - 4	- 1 ton truck & Trl.
5	"	717th Ord - 4	- 1 ton truck & Trl.
6	"	717th Ord - 4	- 1 ton truck & Trl.
7	"	717th Ord - 4	- 1 ton truck & Trl.
8	"	717th Ord - 4	- Two 1 ton trls.
9	"	717th Ord - 4	- Two 1 ton trls.
10	"	717th Ord - 3	- Two 1 ton trls.
11	"	717th Ord - 0	- Ammunition
12	"	717th Ord - 0	- "
13	"	" " 0	"
14	"	" " 0	"
15	"	" " 0	"
16	"	" " 0	"
17	"	" " 0	"
18	"	" " 0	"
19	"	" " 0	"
20	"	" " 0	"
21	Maxton	139 Engr. 5 men,	1 ton Truck., Misc.
22	"	" " 4 men,	1 ton truck, Hd. Cart, Mines & Misc.
23	"	" " 5 men,	1 ton trl, Med Equip., Misc.
24	"	" " 3 men,	1 ton Truck, Explosives Engr. Equip
25	"	" " 3 men,	1 ton Truck, SCR 625, Misc.
26	"	" " 3 men,	1 ton truck., Mines, Misc.
27	"	" " 3 men,	1 ton Trl., Torp., Mines, Misc.
28	"	" " 3 men,	1 ton truck, SCR 625, Mines, Misc.
29	"	" " 2 men,	1 ton truck w/Trl. Engr & Misc. Equip
30	"	" " 3 men,	1 ton truck, Hd Cart, Misc.
31	"	" " 3 men,	1 water Unit, Mines, Misc.
32	"	" " 3 men,	1 water Unit, Mines, Misc.
33	"	" " 4 men,	1 ton truck, SCR 300, 625, Expl, Equip
34	"	" " 11 men,	1 ton Trl., Hd Cart., Engr. & Misc.
35	"	" " 11 men,	1 ton Trl., Hd Cart Engr. & Misc. Eq
36	"	" " 10 men,	1 ton Trl, Hd Cart, Mines, Engr. Eq.
37	"	" " 4 men,	1 ton truck., SCR-500, 625, Expl, Mis
38	"	" " 10 men,	1 ton Trl., Hd Cart, Expl., Engr. Eq
39	"	" " 10 men,	1 ton Trl, Hd Cart Expl., Engr. Equip
40	"	" " 10 men,	1 ton Trl, Hd Cart, Expl., Engr. Eq.

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Camp Mackall, North Carolina

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224 Med Co (-)
Div Arty, Hq & Hq Btry
Btry D, 460

28 December 1943

UNIT SERIAL 22 TO GROUP 439

PLANT NO.	DEPART FROM	LOADINGS (General Description)		
1	Maxton	Med Co	6 men	1/2 ton truck & Misc.
2	"	" "	6 "	1/2 ton truck & Misc.
3	"	" "	8 "	Trailer, litters, canvas chests, blankets
4	"	" "	7 "	Trailer, litters, canvas chests, blankets
5	"	" "	5 "	1/2 ton truck & Misc.
6	"	" "	6 "	Trailer, blankets, chests, Tent.
7	"	" "	4 "	1/2 ton truck & Misc.
8	"	" "	6 "	Trailer, blankets, chests, Tent.
9	"	" "	4 "	1/2 ton truck & Misc.
10	"	" "	6 "	Trailers, blankets, chests
11	"	" "	4 "	1/2 ton truck & Misc.
12	"	" "	4 "	1/2 ton truck w/trailer, Misc.
13	"	" "	4 "	1/2 ton truck w/trailer, Misc.
14	"	" "	4 "	1/2 ton truck w/trailer, Misc.
15	"	G - 4	0 "	Supplies
16	"	H & H Btry Div Arty	6 "	1/2 ton truck
17	"	"	10 "	1/2 ton trailer
18	"	"	5 "	1/2 ton truck
19	"	"	6 "	1/2 ton truck
20	"	"	7 "	1/2 ton trailer
21	"	"	4 "	1/2 ton truck w/trailer
22	"	"	10 "	1/2 ton trailer
23	"	"	9 "	1/2 ton trailer
24	"	"	6 "	1/2 ton truck :
25	"	"	5 "	1/2 ton truck
26	"	"	5 "	1/2 ton truck
27	"	"	9 "	1/2 ton trailer
28	"	460 FA Btry D	6 "	1/2 ton trk.- 50 Cal. MG
29	"	" "	12 "	MG & Ammo.
30	"	" "	6 "	1/2 ton truck - MG
31	"	" "	12 "	MG - Ammo.
32	"	" "	5 "	1/2 ton truck - 1 MG
33	"	" "	14 "	MG & Ammo.
34	"	" "	5 "	1/2 ton truck & MG
35	"	" "	9 "	MG & Ammo.
36	"	" "	14 "	Handcart & Misc.
37	"	" "	15 "	Misc. & Equip.
38	"	" "	14 "	Misc. & Equip.
39	"	" "	14 "	Misc. & Equip.
40	"	" "	14 "	2 MG Cart & Misc. Equip.

MANEUVER - SECRET - COUNTEROAF

AIR TRANSPORT MOVEMENT TABLE

Maps: Photomap CAIF INCKALL and vicinity, 1:20,000, Sheets:

- TROY 22, 23, 24, 28, 29
- 30, 34, 35, 36
- SANFORD: 19, 25, 26, 31, 32
- ROCKINGHAM: 4, 5, 6, 10, 11, 12
- LAURINBURG: 1, 2, 7, 8

HQ 17TH AIRBORNE DIVISION, N.C.
 HAYTON ARMY AIR BASE
 0800 December 28, 1943

MANEUVER - SECRET
 By Authority of
 CG, 17th AB Div.
 Initials: E. J. J.
 Date: 0800 Dec 28, 43

Serial No.	TC Unit	Serial Co Designated By	No. Airplanes	No. Gliders	Depart From	Planes Loaded With	Glider Loaded With	Objective Area	Loading Begins	Stations	Departure Time	Arrive Objective Area	Remarks
1	438	WIRE	1	0	Maxton	Pathfinders	- -	GI2	- -	H-3720	H-3650	H-3441	D - 2
2	439	WIRE	1	0	Maxton	Pathfinders	- -	GI2	- -	H-3728	H-3658	H-3441	D - 2
3	440	WIRE	1	0	Maxton	Pathfinders	- -	GI2	- -	H-3737	H-3707	H-3451	D - 2
4	440	CO 517	50	0	Pope	2nd Bn 517 CT	- -	IDZ #1	H-1300	H-0912	H-0842	H-0630	D - 1 All Planes w/6 racks each.
5	441	CO 517	9	0	Lumberton	Co. C 517th (-)	- -	PDZ #2	H-1200	H-0901	H-0831	H-0615	D - 1
6	438	CG 17th AB Div.	50	100	Maxton	1st Bn 517 CT (-)	(7)	PDZ #3	H-1600	H-1005	H-0935	H-0630	D - 1
7	439	CG 17th AB Div.	50	50	Florence	3rd Bn 517 CT	(34)	PDZ #3	H-1600	H-0837	H-0807	H-0530	D - 1 12 planes w/6 racks each.
8	441	CO 517	18	0	Lumberton	Elem. 517 CT	(16)	PDZ #3	H-1200	H-0709	H-0639	H-0430	D - 1
9	438	CO 194	50	100	Maxton	- -	(15)	GI2 #12-15	H-1400	H-0050	H-0020	H-0300	D - 1

Div Hq (-)
 1st Bn 194 CT (-)
 Arty 517 CT
 Btys B & C 155
 Elem. 194 CT

(D-1)

D-Day Serial followed immediately by one plane towing two L-4's at

INCKALL.

Inc 1 #1

Serial No.	TC Unit	Serial CO Designated By	No. Airplanes	No. Gliders	Depart From	Planes Loaded With	Glider Loaded With	Objective Area	Loading Begins	Stations	Departure Time	Arrive Objective Area	Remarks
10	439	00 541	50	0	Marston	3rd Bn 541 CT		HDZ/1	H+0100	H+0157	H+0227	H+0500	D - Day
<u>AIR LIFTING</u>													
11	440	06 173h AE Div.	40	0	Lope	17th Div F.C.O.'s, 1st's, G-4 Reps. Div Tq, Lighter 1statoon Div Tq (16) 517 Sig Co (8) 1st Fl. 224 Reg Co (9) 194 CT (7)		HDZ/1	H+0230	H+0434	H+0444	H+0700	I - Day
12	441	00 155	40	0	Lumberton	Btry's D, E & F 155		HDZ/1	H+0330	H+0545	H+0555	H+0830	D - Day
13	438	06 173h AE Div.	40	0	Marston	517 155 193 G-4	(25) (4) (1) (10)	HDZ/1	H+0600	H+0822	H+0832	H+1100	D - Day
14	439	AE Div. 17th	40	0	Marston	G-4 193	(20) (20)	HDZ/1	H+0800	H+1022	H+1032	H+1300	D - Day
15	440	00 193	40	0	Lope	193	(40)	HDZ/1	H+1015	H+1233	H+1243	H+1500	D - Day
16	441	00 193	40	0	Lumberton	193	(40)	HDZ/1	H+1130	H+1453	H+1503	H+1730	D - Day
17	440	00 193	40	0	Lope	193	(40)	HDZ/1	H+1815	H+2103	H+2113	H+2330	D + 1
18	441	00 193	40	0	Lumberton	193	(40)	HDZ/1	H+2040	H+2323	H+2333	H+2600	I + 1

Serial No.	PC Unit	Serial CO	Designated By	No. Airplanes	No. Officers	Depart From	Planes Loaded	With	Glider Loaded	With	Objective Area	Loading Begins	Stations	Departure Time	Arrive Objective Area	Remarks
19	438	CC 17th AE Div.		40	0	Maxton	G-4 517 Sig Co 193 2nd Fl. 224 Med Co	(25) (1) (4) (10)	--		H.C. ILL	H+2240	H+2521	H+2531	H+2800	F+1
20	439	CG 17th AB Div.		40	0	Maxton	G-4 139 Engr Bn(-) 139 Engr Bn(-)	(20) (20)	--		H.C. ILL	H+2440	H+2721	H+2731	H+3000	F+1
21	436	CC 17th AE Div.		40	0	Maxton	G-4 224 Med Co(-) Div Arty, Hq & Hq Etry Etry E, 460	(20) (14) (13) (13)	--		H.C. ILL	H+3030	H+3251	H+3401	H+3630	F+1
22	439	CC 17th AE Div.		40	0	Maxton	224 Med Co(-) Div Arty, Hq & Hq Etry Etry E, 460	(14) (13) (13)	--		H.C. ILL	H+3230	H+3451	H+3601	H+3830	F+1

Resupply E + 1 to F + 4 on call.

FILED

OFFICIAL:

Resupply
RESINCH
C - 3

Hq, 17th AB Div.
 MAXTON ARMY AIR BASE, N.C.
 0800 Dec 28, 1943

UNCLASSIFIED

MANEUVER - SECRET
 By Authority of
 CG, 17th AB Div.
 Initials: E J M
 Date: 0800 Dec 28, 43

- Incl. #1 to)
- :
- ANNEX #2 to)
- :
- F. O. NO. 1)

NUMBERING OF PLANES AND GLIDERS.

- A. All gliders will be numbered serially before loading as designated in Inclosures #1, 2 & 3 to ANNEX No. 3 to F. O. No. 1. These numbers will be placed on both sides of fuselage and on lower surface of one wing by the Troop Carrier Groups. In both double tow and single tow formations, the glider numbers will run consecutively from front to rear of column with even numbers on the left and odd numbers on the right.
- B. (1) All airplanes will be numbered by the 60th Troop Carrier Groups and loaded as designated in C below. These numbers will be marked with white chalk on the fuselage next to the door.
- (2) For all parachute jumps the numbers will be placed on the planes in the order in which the planes pass over the PDZ.
- (3) For Air Landings planes will be numbered consecutively as they will arrive at HICKAM AIRFIELD.

C.	Serial No.	No. Planes	No. Gliders	Assignment of Nos. to Planes	Assignment of Nos. to Gliders
	4	50		2nd Bn 517 CT #1-50 Incl.	
	5	9		Co C, 517th(-) #1-9 Incl.	
	6	50	100	1st Bn 517 CT(-) #1-50 Incl. Div Hq Arty 517 CT 1st Bn 194 CT	See Incl. #1 to ANNEX No. 3 to FO No. 1
	7	50	50	3rd Bn 517 CT #1-50 Incl. Btrys B & C 155 Elem. 194 CT	See Incl. #2 to ANNEX No. 3 to FO No. 1
	8	18		Elem. 517 CT #10-18 Incl.	
	9	50	100	----- 194 CT(-1st Bn CT)	See Incl. #3 to ANNEX No. 3 to FO No. 1
	10	50		3rd Bn 541 CT #1-50 Incl.	
	11	40		17th Div FCO's, LP's #1-16 Incl. G-4 Reqs, Div Hq, Fighter Fl. Div Hq 517 Sig Co #17-24 Incl. 1st Fl 224 Med Co #25-33 Incl. 194 CT #34-40 Incl.	Further breakdown to be published by Div Hq Comdt.
	12	40		Btrys D, E & F 155 #1-40 Incl.	
	13	40		G-4 #1-10 Incl. 517 #11-35 Incl. 155 #36-39 Incl. 193 #40	
	14	40		193 #1-30 Incl. G-4 #31-40 Incl.	
	15	40		193 #1-40 Incl.	
	16	40		193 #1-40 Incl.	
	17	40		193 #1-40 Incl.	
	18	40		193 #1-40 Incl.	

<u>Serial No.</u>	<u>No. Planes</u>	<u>No. Gliders</u>	<u>Assignment of Nos. to Planes</u>	<u>Assignment of Nos. to Gliders</u>
19	40		G-4 517 sig Co 193 2nd Pl 224 Med Co	# 1-25 Incl. #26 #27-30 Incl. #31-40 Incl.
20	40		G-4 139 Engr Bn	# 1-20 Incl. #21-40 Incl.
21	40		G-4 139 Engr Bn	# 1-20 Incl. #21-40 Incl.
22	40		224 Med Co Div Arty, Hq & Hq Btry Btry D, 460	# 1-14 Incl. #15-27 Incl. #28-40 Incl.

WILEY

OFFICIAL:

Messinger
 MISSINGER
 G - 3

UNCLASSIFIED

Hq., 17th AB Div.
Maxton Army Air Base, N. C.
0800 28 Dec 43

MANEUVER - SECRET
By Authority of
CG, 17th AB Div.
Initials: G.M.
Date: 0800 28 Dec 43

ANNEX NO. 3)
to :
F. O. NO. 1)

Glider Parking, Loading & Landing Plan

Serials 6, 7, & 9

1. Parking - Gliders parked for loading in column of twos, odd numbers on the right, even numbers on the left.
2. Loading - Units load gliders as per assigned glider numbers on tables attached. For time of loading, see pertinent serial Annex #.
3. Landing - Gliders land at glider landing zones as per tables attached. See Inclosures #4 and #5.
4. Organization & Equipment - Necessary tail props, lashings and chocks by units concerned. Units and detachments organized prior to loading to facilitate ready movement to assigned gliders. Flight forms executed in quintuplicate to be ready D-3 Days.

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G-3

5 Inclosures

- Incl #1 - Serial 6
- Incl #2 - Serial 7
- Incl #3 - Serial 9
- Incl #4 - Overlay GLZ 1-10 incl.
- Incl #5 - Overlay GLZ 11-15 incl.

UNCLASSIFIED
MANEUVER - [REDACTED] - CUTTHROAT

UNCLASSIFIED
SECRET - MASSIVE GROUP

For Use of Units	GLZ #	Glider Assgd To	Left Glider Line	Right Glider Line	Glider Assgd To	GLZ #	For Use of Units
	11	517	100	101	194	1	
	11	517	102	103	194	2	
	11	517	104	105	194	3	
	11	517	106	107	194	4	
	11	517	108	109	194	1	
	11	517	110	111	194	4	
	11	517	112	113	194	7	
	11	517	114	115	194	2	
	11	517	116	117	Div Hq	6	
	11	517	118	119	194	9	
	11	517	120	121	194	3	
	11	517	122	123	Div Hq	8	
	11	517	124	125	194	10	
	11	517	126	127	194	5	
	11	517	128	129	194	1	
	11	517	130	131	194	7	
	6	Div Hq	132	133	194	2	
	10	194	134	135	194	5	
	9	194	136	137	194	3	
	8	194	138	139	194	4	
	7	194	140	141	194	1	
	6	Div Hq	142	143	194	2	
	10	194	144	145	194	5	
	9	194	146	147	194	3	
	8	194	148	149	194	1	
	7	194	150	151	194	4	
	10	194	152	153	194	2	
	6	Div Hq	154	155	194	3	
	9	194	156	157	194	5	
	8	194	158	159	194	4	
	7	194	160	161	194	1	
	10	194	162	163	194	2	
	6	Div Hq	164	165	194	3	
	9	194	166	167	194	5	
	8	194	168	169	194	4	
	7	194	170	171	194	1	
	10	194	172	173	194	2	
	6	Div Hq	174	175	194	3	
	9	194	176	177	194	5	
	8	194	178	179	194	4	
	7	194	180	181	194	1	
	10	194	182	183	194	4	
	5	194	184	185	194	3	
	9	194	186	187	194	2	
	8	194	188	189	194	5	
	7	194	190	191	194	1	
	10	194	192	193	194	5	
	4	194	194	195	194	3	
	9	194	196	197	194	2	
	8	194	198	199	194	4	

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SERIAL 7 -- 439TH GROUP

For Use of Units	GLZ #	Glider Assgd To	Left Glider Line	Right Glider Line	Glider Assgd To	GLZ #	For Use of Units
	3	194	200	201	155	1	
	7	155	202	203	155	5	
	4	194	204	205	194	2	
	9	155	206	207	155	6	
	3	194	208	209	155	1	
	8	155	210	211	155	6	
	4	194	212	213	194	2	
	7	155	214	215	155	6	
	9	155	216	217	155	1	
	5	155	218	219	194	3	
	8	155	220	221	155	6	
	7	155	222	223	194	2	
	9	155	224	225	155	5	
	8	155	226	227	194	4	
	3	194	228	229	155	1	
	7	155	230	231	194	2	
	8	155	232	233	155	5	
	9	155	234	235	194	4	
	3	155	236	237	155	1	
	8	155	238	239	194	2	
	7	155	240	241	155	5	
	9	155	242	243	194	4	
	8	155	244	245	155	1	
	7	155	246	247	194	2	
	9	155	248	249	194	4	

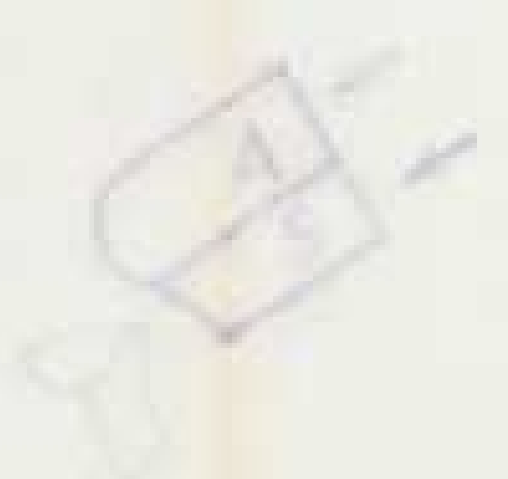
Incl. #2

UNCLASSIFIED

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For Use of Units	GLZ #	Glider Assgd To	Left Glider Line	Right Glider Line	Glider Assgd To	GLZ #	For Use of Units
	14	194	300	301	194	12	
	15	194	302	303	194	13	
	14	194	304	305	194	12	
	15	194	306	307	194	13	
	14	194	308	309	194	12	
	15	194	310	311	194	13	
	14	194	312	313	194	12	
	15	194	314	315	194	13	
	14	194	316	317	194	12	
	15	194	318	319	194	13	
	14	194	320	321	194	12	
	15	194	322	323	194	13	
	14	194	324	325	194	12	
	15	194	326	327	194	13	
	14	194	328	329	194	12	
	15	194	330	331	194	13	
	14	194	332	333	194	12	
	15	194	334	335	194	13	
	14	194	336	337	194	12	
	15	194	338	339	194	13	
	14	194	340	341	194	12	
	15	194	342	343	194	13	
	14	194	344	345	194	12	
	15	194	346	347	194	13	
	14	194	348	349	194	12	
	15	194	350	351	194	13	
	14	194	352	353	194	12	
	15	194	354	355	194	13	
	14	194	356	357	194	12	
	15	194	358	359	194	13	
	14	194	360	361	194	12	
	15	194	362	363	194	13	
	14	194	364	365	194	12	
	15	194	366	367	194	13	
	14	194	368	369	194	12	
	15	194	370	371	194	13	
	14	194	372	373	194	12	
	15	194	374	375	194	13	
	14	194	376	377	194	12	
	15	194	378	379	194	13	
	14	194	380	381	194	12	
	15	194	382	383	194	13	
	14	194	384	385	194	12	
	15	194	386	387	194	13	
	14	194	388	389	194	12	
	15	194	390	391	194	13	
	14	194	392	393	194	12	
	15	194	394	395	194	13	
	14	194	396	397	194	12	
	15	194	398	399	194	13	

UNCLASSIFIED



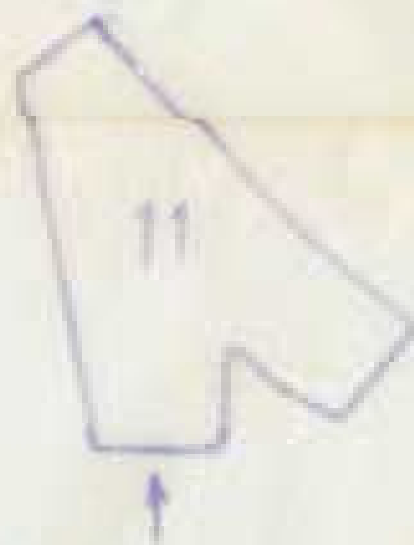
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GLZ
 American Area

Handwritten text at the bottom left, possibly a date or reference number.

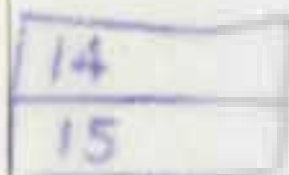
Sheet No. 3 of FO No. 2
 INCLOSURE No. 4
 GLZ No. 3 HC
 CAMP MACRAE, EVIDENCE
 PHOTOGRAPHS
 TRAY 223A
 8526
 SCALE 1:20000

1144
+ 1241



B GLZ

D



1145
+ 1344

ANNEX No 3 TO F.O No 1

INCLOSURE No. 5

GLZ's 11-15

CAMP MACKALL & VICINITY

PHOTOMAPS:

TRAY 29, 30

35, 36

SCALE 1:20,000

UNCLASSIFIEDHq., 17th AB Div.
MAXTON ARMY AIR BASE, N. C.
0800 28 Dec. 43MANUEVER - SECRET
By Authority of
CG, 17th AB Div.
Initials: *EGM*
Date: 0800 28 Dec. 43ANNEX NO. 4)
to :
F. O. NO. 1)SIGNAL ORDERS

MAPS: See F. O. No. 1.

1.
 - a. Enemy situation - See Operations Map and Par. 1 of F.O. #1.
 - b. Friendly situation - See Par. 2 of F.O. #1.
 - c. Axes of Signal Communication - DERBY, RJ at 1143.0-1344.0,
MACKALL AIRFIELD, ADDOR, ABERDEEN.
Command Posts.
17th AB Div. - Initial CP 1137.3-1348.4. Others to be reported.
517th Precht. Inf. CT - To be reported.
193rd Glider Inf. CT - To be reported.
194th Glider Inf. CT - To be reported.
Signal Supply Dump: Airhead at CAMP MACKALL AIRFIELD.
 - d. The combined ABTC Task Force will furnish telephone and telephone switching facilities and teletype service between MAXTON ARMY AIRBASE and POPE FIELD, LUMBERTON, FLORENCE and CAMP MACKALL. This service to be ready by 0800, 27 December 1943.
2. Communications will be established immediately upon landing.
3. The 517th AB Signal Company will install, operate and maintain the division signal system as follows:
 - a. (1) Message Center at advanced CP located at 1137.3-1348.4 will be established at H-5 hours, D-1 Day.
 - (2) (a) Two radio stations will be provided at the Division CP to operate in the Task Force Command Net.
 - (b) An additional radio SCR-284 will be provided in each CT to handle overflow traffic and for use in leapfrogging the CP.
 - (c) From H-7, D-1 Day to H-hour, D-Day Division Command Net #1 will consist of the 17th AB Division, 194th Gli. Inf. CT, 517th Precht. Inf. Regt. and the 2nd Bn., 517th Precht. Inf. Regt. Call signs for the 2nd Bn., 517th Precht. Inf. Regt. are as shown in 517th Precht. Inf. Regt. Command Net. Call signs for other stations are as shown in Division Command Net #1.
 - (d) The radio repair section will be located at the Division radio station.
 - (3) (a) Wire communication will be installed from Division to Regiments after the Division CP is moved to CAMP MACKALL AIRFIELD. Two lines will be installed; one line to each Regiment will be simplex for telegraph.

(b) A line route map of the wire system installed by the 517th AB Signal Company will be submitted to the Division Signal Office as soon as the system is installed.

- x. (1) Each Battalion and each Regimental Headquarters will be equipped with four pigeons for emergency communications, back to Task Force. Requisition should be submitted for any additional birds required.
- (2) All radio communication in the 17th AB Division will be silenced until H-7 hour on D-1 Day.

a

- 4. a. Signal dumps: At airhead located at CAMP MACKALL AIRFIELD
- b. Signal repair: At Division radio station, located at Division CP.
- c. Pigeon supply: At departure bases by signal supply section.

5. See Index No. M-1 to SOI.

MILEY

OFFICIAL:

Messinger
MESSINGER

G - 3

UNCLASSIFIED

SECRET

SECRET

SECRET

SECRET

SECRET

17AB

GLZ 27

GLZ 9

ICT 194

1352
1140

194 517

ICT 194

PREVENT
MOVEMENT
REDS THRU
ABERDEEN

ICT 194

194 517

ICT 517

MOVE TO THIS POSITION
TO PREVENT MOVEMENT
OF REDS THRU
ABERDEEN FROM N

17AB

ICT 517

MOVE TO THIS
POSITION VIA
HWY 15
PREVENT
MOVEMENT OF REDS
THRU ABERDEEN
FROM EAST

17AB
SECURE GLZ
FOR GLIDER
LANDING
OF REDS
OF CT 194

GLZ

GLZ 24

GLZ 19

17AB

ASSIST
IN THE
CAPTURE OF
AIR FIELD

MANEUVER-SECRET-CUTTHRO

OPN. OVERLAY

17TH ABDIV.

TO ACCOMPANY F. O. NO 1
0800 28 DEC. 1943
PHOTOMAP: CAMP MACKALL &
VICINITY SCALE 1:20,000

UNIT ORDNANCE
IN ASSSEMBLY

SECURE AIRFIELD
AFTER IT IS CAPTURED

ATTACK
&
SEIZE
AIRFIELD

SEE ANNEX
NO 1 & NO 2
TO ADM. ORD
NO 1

THIS IS A SECRET DOCUMENT. IT IS NOT TO BE
REPRODUCED OR TRANSMITTED IN ANY MANNER
WITHOUT THE WRITTEN PERMISSION OF THE
SECRETARY OF DEFENSE.

APPENDIX E (2)

Blue Forces -
60th Troop Carrier Wing

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

Report of

60th Troop Carrier Wing

ABTC Manuever 5-9 January, 1944

Field Orders of 60th Troop Carrier Wing

in accompanying envelope

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB,
Maxton, North Carolina,
10 January 1944.

SUBJECT: Report on AB/TC Maneuvers, 5 to 8 January 1944.

TO : Director, Troop Carrier-Airborne Task Force.

1. PURPOSE:

a. The Training of Airborne and Troop Carrier Staffs in planning and conducting Airborne operations.

b. The Training of Airborne and Troop Carrier Units in air movement, rapid assembly and attack by combined Arms both during day and night.

2. MISSIONS:

The air movement into combat, and subsequent reinforcement, resupply and evacuation of an Airborne Division using four (4) departure bases, over a circuitous route of approximately three hundred (300) miles, fifty percent (50%) of landings to be conducted at night.

3. UNITS AND EQUIPMENT:

The 438th, 439th, 440th, and 441st Groups with full complement of aircraft, 250 gliders, and sufficient spares to insure tactical commitment of all groups at full strength.

4. RESULTS:

a. Over fifty (50%) percent of the Division was landed in combat zone within ten (10) hours. Over ninety (90%) percent of the Division or approximately all combat troops with their equipment, were landed within thirty eight (38) hours, at which time problem was called on account of weather.

*the air landing
phase of the*

5. CONCLUSIONS:

a. That ninety (90%) percent of all gliders arrived in combat zone within proper fields.

b. That ninety eight (98%) percent all Paratroops landed in proper DZ.

c. That pilotage training of pilots was inadequate for requirement.

d. That insufficient time was available for training for a problem of this type.

e. That unflyable weather caused the problem to be called early.

Report on AB/TC Maneuvers, to Director, AB/TC Task Force, contd)

f. That formation lights only cannot be depended upon to maintain formation at distances greater than 2000 feet. When a pilot in line once loses his leader, he becomes lost completely.

g. That Airdrome control was positive and complete at both departure and forward bases.

h. That there was no delay in loading or unloading or the departure of any air landing serials.

6. RECOMMENDATIONS:

a. That more emphasis be placed on pilotage..course, time and distance...training for all Troop Carrier pilots during Unit Training phase. All pilots to be proficient before reaching Tactical Training phase.

b. That a minimum of six (6) weeks time for tactical training be available for all Units before attempting a problem of this nature.


c. That a reasonable increase in Training time be made to take into account unflyable weather conditions during training period.

d. That take off, assembly and route be flown during daylight, to cross enemy territory at dark. Landings to be made approximately thirty minutes after dark..the last thirty minutes or the distance of run in, to be on a straight course to GLZs, thus preventing pilots from becoming lost on turns after dark, or that all planes be equipped with rebecca, with a minimum of six (6) weeks training for all crews before a night operation can be successful.

e. That Airdrome control on departure bases be maintained by Unit using that base, on the forward Airdrome by Wing advance C.P.

f. That for air landing and resupply operations, a Group formation of a column of Squadrons at not less than ten (10) minute intervals be adopted in all cases. This will give ample time for loading and unloading, also afford plenty of flexibility of plan or operation.

g. That a well trained loading crew at resupply dumps is essential for fast operation. They should be able to load one Group in not more than two (2) hours time.


JEROME B. MCCAULEY,
Colonel, Air Corps,
Commanding.

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB,
Maxton, North Carolina,
9 January 1944.

SUBJECT: A-1 Maneuver Report.

TO : Commanding Officer, 60th Troop Carrier Wing, Laurinburg-Maxton AAB,
Maxton, North Carolina.

1. Ten (10) replacement crews were requested from Maneuver Headquarters when the A-2 this Headquarters obtained the information that ten (10) planes had been shot down. These replacements were sent to the Groups as called for.

2. The groups engaged in maneuvers were hampered by a considerable percentage of their personnel being assigned to them while the Groups were in the last stages of training. This was due to the slow flow of manpower to the Command and to the Wing.

3. The present T/O does not give the Groups adequate personnel in glider mechanics (559) for the training operations while engaged in glider tow. The number of men required for rope details, retrieving gliders, hook-up details, and maintenance of gliders, requires considerably more than the 104 glider mechanics assigned by the present T/O. Consequently, during the training program, this Wing assigned approximately forty (40) extra glider mechanics to the Group engaged in the most glider work, and this was barely enough to get them by.

4. During the training program, where most effort is put on glider operations, an overage of approximately 10% of glider pilots is required. This is due to the fact that one glider officer in each Squadron is required to handle glider engineering and the Group glider officer is busy with the operations, and unable to fly in many missions. Also casualties are frequent and have to be replaced instantly.

5. The 438th Troop Carrier Group, in the present maneuver, was required to do two (2) glider drop missions. The first one, 100 glider drop in the evening of D-1, and another 100 glider drop in the morning of D day. As the glider pilots who flew in the first mission, could not be retrieved in time to fly in the 2nd mission, an overage of 110 glider pilots was placed on temporary duty with this group for this purpose.



A. D. ADAIR, JR.
Lt Col, Air Corps.
A-1.

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB,
Maxton, North Carolina,
10 January 1944.

SUBJECT: Report of A-2 on Maneuver Cutthroat.

TO : Commanding Officer, 60th Troop Carrier Wing,
Laurinburg-Maxton AAB, Maxton, North Carolina.

1. Upon receipt of the announcement of Maneuver Cutthroat from Combined A/B-TC Maneuver Headquarters, the A-2 section made a preliminary survey of the situation and determined that:

a. The groups, which during the maneuver, would be under this Wing for tactical purposes, would not be assigned in time to permit Group S-2's to make the necessary preparations to assure that adequate materials would be available for complete and proper intelligence functioning without much assistance from Wing.

b. The Wing A-2 section would need to accomplish much of the physical task of preparing, assembling, and distributing the necessary information and materials, even though many of such tasks would, in pursuance to SOP, constitute the work of respective Group and Squadron S-2's.

c. A photo-mosaic of the "Maneuver Area" was to be prepared and made available by Maneuver Headquarters.

d. Photographic service to accomplish the photographing and developing of such pictures as might be desired would be furnished through Maneuver Headquarters.

e. The time for preparation was comparatively short and that if materials and information were to reach the respective groups in time to be of any real assistance in the execution of the operation, it would be essential to act with unusual dispatch.

2. Acting upon the foregoing preliminary considerations, the A-2 section proceeded to accomplish the following in preparation for the maneuver:

a. Obtained maps, including Sectional Aeronautical Charts, Charlotte, Norfolk and Savannah, 1:500,000; Strategic Maps, Charlotte Sheet, 1:500,000; Photo Mosaic, 1:20,000, consisting of 24 sheets, each, as detailed, p. 4, Annex 1 to FO 2; Photo Mosaic, 1:62,500, consisting of nine sheets each, also detailed in reference last above made.

b. Consulted with Capt. L. B. Elder, officer detailed on TD to 60th Wing for purpose of accomplishing photography mentioned in 1. c. and 1. d., as to requirements and ordered and obtained through Capt. Elder, photo mosaics, 1:15,000, of the West End-Hoffman-Sand Pit-Southern Pines Area; photo mosaic, 1:15,000, of flight strips from Bridge over Pee Dee River to Biscoe to Derby Area and from Sanford to Hemp to Harris; photo mosaic, 1:7,500, of the Derby Area; photo mosaic, 1:62,000, of the West End-Hoffman-Sand Pit-Southern Pines Area.

c. Obtained oblique photographs of GLZ's 1-11 inclusive; PDZ's 1, 2, and 3; Derby Area power approach and from center of Derby Area to south end.

d. Prepared and reproduced Flight Strip Maps, 1:250,000, for course Pee Dee River Bridge to Biscoe to PDZ 3, from Sanford to Hemp to PDZ 1, from Sanford to Hemp to PDZ 2.

e. Prepared and reproduced Night Maps, (by photographic process), 1:45,000, of course from Pee Dee River Bridge to Biscoe to PDZ 3, from Sanford to Hemp to PDZ's 1 and 2, and Night Map, 1:15,000, of course from RDZ south of Derby area to GLZ 11 to PDZ 3.

f. Obtained photographs, sizes 24 x 18 and 3 x 10, of departure airports and of airfield at Camp Mackall.

g. Had prepared slides of GLZ's 1-15 inclusive.

h. Produced terrain models of Derby Area (GLZ's 1-10 inc.), 1:7,500.

i. Prepared and reproduced route overlays for each of nine courses from respective departure airports to respective objectives; map Sectional Aeronautical Charts, 1:500,000.

j. Prepared and reproduced the following additional overlays:

(1) Situation overlay, Map Strategic, Charlotte Sheet, 1:500,000.

(2) AA overlays (2 sets) one for map, Sectional Aeronautical Chart, Charlotte Sheet, 1:500,000, and one set of three for map, photo mosaic, 1:62,500.

(3) Navigational Aids Overlay, map, photo mosaic, 1:62,500.

(4) Radio Navigational Aids Overlay, map, Sectional Aeronautical Chart, Charlotte Sheet, 1:500,000.

(5) Emergency Landing Fields Overlay, map, Sectional Aeronautical Chart, Charlotte Sheet, 1:500,000.

(6) Glider overlays 1, 1A, 1B, 2, and 2A, map, photo mosaic, 1:20,000.

k. Prepared Glider Folders (one for each of 250 glider pilots) consisting of oblique photograph of appropriate GLZ, Field Description (prepared by Wing Glider Officer) of appropriate GLZ, and appropriate glider overlays.

l. Subsequent to ordering photo mosaics mentioned in 2. b. hereof it became evident that copies of the photo mosaics used in Maneuver Bandit would be necessary. Consequently photo mosaics, 1:15,000, and photo mosaics, 1:45,000, of Mackall-Knollwood Area were obtained.

3. All the materials mentioned in 2. a. to 1. inc. were obtained in sufficient quantities to permit the distribution to groups indicated, pp. 4-6 inc., Annex No. 1 to FO No. 2. Noteworthy is the fact that in many instances Group S-2's requested additional copies of many of the items listed and in

every instance the request was accomplished.

4. A War Room was established at Wing in which were displayed the materials obtained, produced, and reproduced by Wing A-2 section.

5. All the materials listed pp. 4-6 inc., Annex No. 1 to FO No. 1, with the exception of mosaics of the maneuver area, were actually distributed to or made available to the Groups by 26-27 December 1943.

6. Group S-2's were briefed by Wing A-2 on 24 December 1943 in Wing War Room.

7. Group S-2's were present at general briefing by CO of Wing, Wing A-2, A-3, A-4, and Glider Officer at Base Theater on 28 December 1943.

8. Intelligence Annex (Annex No. 1 to FO No. 2) was prepared and submitted on 26 December 1943 for incorporation with FO and distribution.

9. Mosaics were available and distributed on 29 December 1943.

10. Close contact was maintained by Wing A-2 with G-2, 17th A/B Division, and an attempt was made to furnish to G-2, 17th A/B Division any available materials desired as well as to establish plans for the lateral exchange of intelligence during the operation.

11. Facilities of the A-2 section for preparing and reproducing charts, overlays, etc., were made available to other Wing sections. Parking diagrams for A-3 and a communications net chart for Wing Communications section were prepared.

12. Daily contact was maintained among Wing A-2 and Group S-2's prior to D - 1 in an effort by Wing to lend whatever assistance possible, to determine the status of preparation by Group S-2's and to assure so far as possible the proper use by Group S-2's of the mass of material furnished by Wing.

13. Weather reports were furnished twice daily to Group S-2's during the operation.

14. The functioning of Group S-2 sections prior to and during the maneuver was in general highly satisfactory from the standpoint of the Wing. Mission reports, flash reports, and periodic intelligence reports were rendered as required. The mission reports were well prepared and showed in most cases that a thorough, painstaking and efficient job of interrogation had been done. Group S-2 sections of the 439th, 440th, and 441st Groups functioned particularly well and are deserving of special mention by your Wing A-2.

15. Copies of mission reports and information from whatever other sources were furnished to the 17th A/B Division by Wing A-2 and information was likewise furnished by the 17th A/B division to the Wing A-2.

16. As a result of the operation it is natural that there are respects in which improvement may be made for a future similar operation. Observations in these respects follow as conclusions of the Wing A-2.

a. A mosaic of the maneuver area is the basis of the preparations and planning for at least 70% of intelligence to be furnished. It follows, therefore, that if a mosaic is to be furnished, it should be

made available sufficiently soon to enable Wing A-2 to make full use of it and still make Group distributions of materials based thereon, sufficiently soon to enable the Group S-2 sections to make effective use of the materials furnished.

b. Terrain models are of no particular benefit in an operation to be accomplished in a region comprised of comparatively flat, even terrain. Night photographic maps may portray more effectively all that a terrain model will disclose under such circumstances.

c. Flight Strip Maps and Night Photo Maps are helpful only if properly explained, used and studied. To make effective use of such aids, class room procedure in briefing individual pilots must be established wherein the actual knowledge of the pilot as to his course may be determined. Handing a pilot a group of pictures, maps, flight strips, night maps, etc., with the admonition to study these, will, in many cases, not suffice. If time and effort are to be expended in producing aids to pilots, then it is incumbent upon all to see that effective use of these aids is made, else their production is useless.

d. The results of preliminary missions to be accomplished by Task Force as published in Air Annex (Annex #2) to FO #1, 23 December 1943, and Air Annex (Annex #2) to FO #1, 28 December 1943, Combined A/B-TC Maneuver Headquarters, should be automatically disseminated to Wing.

e. The necessity for classification of papers, documents, and reports should be removed, made applicable to certain matters only, or insisted upon consistently throughout the operation, and Wing advised.

f. Reports required by Maneuver Headquarters during the operation by the various headquarters sections should be coordinated by the various Maneuver Headquarters section heads, thus enabling Wing to likewise coordinate reports and thereby relieve Groups from making reports of the same information in various forms, at various times, to various sections, and by various means, classified and unclassified. For example: A-3 was required to phone information to Maneuver Headquarters, received from Group S-3's by phone, which information ordinarily would normally flow through intelligence channels, properly safeguarded, and be available to all authorized to receive it. Much information received by Wing A-2 from Groups, which normally would have been the first information received, was, in fact, stale by the time it reached Wing by proper means. If, due to conditions inherent in a maneuver, it is desirable that certain information be received at once without regard to the principles of AR 380-5, then and in that event, it is suggested that general instructions to that effect be issued so that the normal collecting agency may receive and disseminate such information by the means desired.

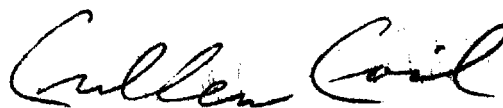
g. Finally, though axiomatic, it here bears repetition, that the closest possible cooperation and coordination between the A-2 and A-3 sections is essential. While this cooperation was in general good in preparation for and during this maneuver, it behooves the A-2 and A-3 to devise ways and means to assure even better and closer coordination for future operations.

17. Capt. John J. Walker, AC, and Lieut. M. R. Lewis, AC, of the Base Photo Laboratory, Laurinburg-Maxton AAB are here mentioned for their excellent cooperation in producing and reproducing quickly, efficiently and in large quantities many pictures, overlays, and charts. Only through yeoman service by these officers and their enlisted section was it possible for Wing A-2 section to accomplish its task.

Sgt. John W. Ripon, Hq., ITCC, Stout Field, placed on DS at this Wing, worked diligently in supervising the production of terrain models.

Cpl. David M. Lachow, Hq., ITCC, Stout Field, arrived this Wing after distribution of materials had been made to Groups. His services were made available, however, to the Groups, and as a result many maps, photographs, and night maps were treated with a process which made them easily visible under the blue light of an airplane cockpit.

Major Paul L. Bissell, AC, ITCC, Stout Field, took a leading role in the Maneuver Bandit. Immediately following and as a result of his experiences in that maneuver many valuable suggestions were made by him to this Wing A-2. It is the opinion of the undersigned that if the ideas of Major Bissell are developed and used in the manner advocated by him, that technique in briefing pilots in I Troop Carrier Command will be vastly improved.



CULLEN GOIL,
Major, Air Corps,
Maneuver A-2.

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB,
Maxton, North Carolina,
10 January 1944.

SUBJECT: Maneuver Report.

TO : Commanding Officer, 60th Troop Carrier Wing,
Laurinburg-Maxton AAB, Maxton, North Carolina.

1. Pursuant to directive from Task Force the following report of Maneuver completed 9 January is submitted.

PLANNING

2. Initial planning was begun during the first week of December 1943. This planning was not specific due to the fact that only a brief picture of the situation was given to this Headquarters at that time. Plans at the time were:

a. Routes were planned and studied which would allow each Group to reach the drop zone without interfering with each other.

b. Schedules were planned which would allow each Group enough time to reach DZ's without interfering with another Group, even though a few minutes early or late.

c. Each Group could use all aircraft assigned for first lift if two or three days were given solely to maintenance prior to first lift. After first lift approximately 75% of assigned aircraft could be used in each lift thereafter.

d. The most experienced Group in the Maneuver could be trained in double glider tow in the short time allotted for training by exhaustive flight schedules even though this Group had only very little single glider tow at the time.

e. The next most experienced Group in the Wing could be trained by intensive operations to accomplish single glider tow. This Group at the time had only single tow ferrying experience.

f. At first it was decided to have all gliders of both Groups land in the same landing fields, but this was abandoned when fields were studied carefully and found that they would not safely take all gliders of both Groups. It was determined that more fields must be found. Two lines of glider fields were picked but given up when it was decided that this plan offered a chance for confusion. It was then concluded to choose more fields at each end of the fields already selected. Three new fields were found which enabled gliders of both Groups to land without too close an interval between landings. Exhaustive studies of obstacles and approaches were made in order to make the operation as safe as possible. A complete and thorough Glider Folder, and written description of each field was prepared by the Wing Glider Officer with pictures of fields as seen from flight line and from final approach.

g. Radar Homing Aids were to be used at the initial points, PDZ's and GLZ's on all approaches, Landing Zones and Drop Zones; however it was found that we were limited to (8) eight Eureka sets. Eureka sets were used at both initial points, the GLZ and the largest PDZ. It was decided to drop two Eureka sets in each position to make doubly certain that one would be in operation.

h. The Task Force Field Order was received by this Headquarters on the 22 December 1943. Final plans were then made with the 17th Division on PDZ's, and the number of planes and special equipment needed. It was then decided that the 441st Troop Carrier Group could not be used extensively on the first night due to their inexperience in night formation paratroop drops; however it was determined to use them for Squadron formations. This Group arrived here the 30th of December, but did not start flying until the 31st of December.

i. The Tactical Problem was given to the Groups at a Wing briefing on 26 December 1943. Complete copies of the Wing Field Order were then given to the Groups after the Wing Briefing.

j. A final "Dress Rehearsal" was planned for each Group to simulate the mission each Group would be flying in the Maneuver.

- (1) The 438th T C Gp made a 72 glider lift and landed gliders on L-M AAB with field divided into four zones.
- (2) The 439th T C Gp mission for 36 gliders was cancelled due to weather.
- (3) The 440th T C Gp dropped paratroops in X field, using Radar on the approach.
- (4) The 441st T C Gp did not have an opportunity to make a night jump before the Maneuver.

OPERATION

1. Prior to transporting the 17th Division, the following Air Deliveries were completed.

a. D-2 Days. Pathfinder Parachutists trained with Groups of this Wing in Lighting Glider Fields, Parachute Drop Zones, and Eureka Equipment were dropped into the assigned area at dusk, by one plane from each Group.

2. Movement of the 17th Airborne Division to the objectives in the West end - Hoffman - Sandpit - Southern Pines area was accomplished as follows:

a. D-1 Day: (Operation Postponed 24 hours because of weather resulting in D-Day being changed to 7 January 1944).

- (1) SERIAL #5 consisting of 48 planes of the 440th T C Group transported and dropped Paratroops in PDZ #1 in accordance with Air Movement Table; 46 planes arrived at PDZ as scheduled with 44 dropping paratroops successfully. 10 planes of this Serial shot down by anticraft at Aberdeen which up to this time had been unreported.
- (2) SERIAL #6 consisting of 9 planes of the 441st T C Group transported and dropped Paratroops in PDZ #2 in accordance with Air Movement Table.
- (3) SERIAL #7 consisting of 50 planes and 100 gliders transported and dropped Paratroops and gliders in PDZ #3, and GLZ's 1 to 11, as in accordance with Air Movement Table. 86 gliders landed in glider landing zones. Four planes brought paratroops back to base.
- (4) SERIAL #8 consists of 50 planes and 50 gliders of the 439th T C Group, dropping in GLZ's and PDZ in accordance with Air Movement Table.

Sub-paragraph (4) of sub-paragraph a. of paragraph 2 cont'd.

42 gliders landed in glider landing zones and 5 planes brought paratroopers back.

- (5) SERIAL #9 consists of 18 planes of the 441st T C Group, dropping paratroops in PDZ #3 as indicated in Air Movement Table.
- (6) SERIAL #10 consists of 50 planes and 98 gliders off, one of which returned with single glider immediately after take-off. 97 gliders landed in GLZ in accordance with Air Movement Table.
- (7) SERIAL #11 consists of 42 planes of the 440th T C Group
- (8) SERIAL #12 consists of 44 planes from the 440th T C Group, 44 planes landing at Mackall with loads as scheduled in Air Movement Table.
- (9) SERIAL #13 consists of 40 planes of the 441st T C Group with 40 planes landing at Mackall as scheduled in Air Movement Table.
- (10) SERIAL #14 which consists of 44 planes of the 438th T C Group with 44 planes landing at Mackall as scheduled in Air Movement Table.
- (11) SERIAL #15 which consists of 45 planes of the 439th T C Group with 45 planes landing at Mackall as scheduled in Air Movement Table.
- (12) SERIAL #16 which consists of 40 planes of the 440th T C Group with 40 planes landing at Mackall as scheduled in Air Movement Table.
- (13) SERIAL #17 which consists of 40 planes of the 441st T C Group with 40 planes landing at Mackall as scheduled in Air Movement Table.
- (14) SERIAL #18 consists of 40 planes of the 440th T C Group with 35 planes landing at Mackall as scheduled in Air Movement Table. 5 planes were lost from formation in bad weather.
- (15) SERIAL #19 which consists of 37 planes of the 441st T C Group with 35 planes reaching Mackall as scheduled in Air Movement Table.
- (16) SERIAL #20 consists of 41 planes of the 438th T C Group with 41 planes landing at Mackall as scheduled in Air Movement Table.
- (17) SERIAL #21 which consists of 44 planes of the 439th T C Group with 44 planes landing at Mackall as scheduled in Air Movement Table. Bad weather necessitated this Serial returning to Laurinburg-Maxton direct from Mackall. Remaining Serials cancelled due to weather.

CONCLUSIONS AND RECOMMENDATIONS

1. This Maneuver demonstrated that a movement of an Airborne Division by a fully equipped T/C Wing in two lifts is feasible. This statement is based on the fact that half of the Division was moved in one lift with only two (2) Groups equipped with gliders. It also demonstrated the necessity for Pathfinders and a method of keeping gliders in a follow the leader column to avoid loosing each other. It was found that after navigation

lights were turned out, planes could not follow the dim formation lights.

2. A plan to operate on scheduled pace of fifteen (15) hours flying in a twenty-four (24) hour period with a ten (10) hour rest period between each twenty-four (24) hour period, could be continue indefinitely.

3. Payload of double glider tow was cut so low by long distance to be flown, that Paratroops were limited to seven (7) man sticks dropped from single ships.

John W. Wise

JOHN W. WISE,
Major, Air Corps,
A-3.

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB,
Maxton, North Carolina,
10 January 1944.

Subject: A-4 Report, Combined Airborne - Troop Carrier Maneuvers, January 1944.

To : Commanding Officer, 60th Troop Carrier Wing, AAF,
Laurinburg Maxton AAB, Maxton, N. C.

1. Initial action taken by Wing A-4 on first information on proposed maneuvers was contact with the Sub-Depots involved and a discussion on the possible supplies and accessories which would be necessary. This did present some difficulty due to a vagueness as to the overall plan, however, it was decided to bring the depot level of supplies up to meet a calculated need for four groups of airplanes. Some items of a nature to make them especially necessary for the maneuvers were emphasized, namely - tie down rings, loading ramps and para-racks. Both depots were contacted, with especial stress for airplanes on the 88th Sub-Depot, it having been designated the depot for power craft; and for gliders, the 399th Sub-Depot. Each depot overlapped but this was expected and necessary. As the plan for the maneuver evolved, more detailed prior planning was possible with the depots and other elements of supply.

2. Early in the preparatory stages it became evident that difficulty was to be encountered in meeting the glider commitments. Principal indications of problems to be overcome were: a. Determination of echelons of maintenance as related to tactical organization maintenance and depot maintenance; b. A specific procedure of depot maintenance, processing, inspection and delivery of gliders to tactical organizations; c. The ratio of local glider production and gliders damaged as a result of the intensive glider training program, clearly indicated an insufficient number of gliders for the meeting of maneuver requirements. In this connection, the following actions were taken to overcome difficulties mentioned: a. Organizational maintenance was stressed and an effort was made to eliminate the line between second and third echelons and encourage a cooperative, "get-the-job-done" attitude - the elements of echelons - tools, time and personnel - were all strained, consequently, all cooperative effort was imperative; b. Acting Wing, Group and Squadron Glider Engineering Officers were appointed, and by conferences with sub-depots, inspection teams were set up - these officers also acted to aid organizational maintenance; c. Information of the critical glider situation and shortage was passed to higher headquarters on several occasions, such reports were assuaged by the fact that flow of new gliders would meet the situation.

a. An additional situation was created because of no predetermined standard of accessories. Installations and modifications to gliders was not clearly outlined until shortly before commitment date; problems of availability of kits, or accessories for the work complicated the flow of "maneuver gliders".

3. Immediately on specific determination of necessary accessories, both power and glider, a letter was dispatched to all groups instructing that such equipment would be on

hand for maneuvers. Status reports were required at frequent intervals. The situation that developed due to late arrival of the 441st Group complicated an early determination of exact status of equipment in the wing.

4. On 26 December 43, a conference of group and squadron Supply and Engineering Officers of the 438th and 439th Groups was held for the purpose of definitely outlining the missions to be accomplished, the need for concentration on full equipment, close supervision to assure maximum application of all personnel, and, a hearing of all problems which might not be conducive to a successful maneuver as related to equipment, accessories and supplies. The 441st Group was not then in the area; the 440th Group and also the 441st were not included in this conference for the reason that the problems of these two groups were not of the same scope as groups using gliders.

5. On evening of 3 January 44, a conference was held of the Supply and Engineering Officers of all groups. At this conference final status of equipment was ascertained, equipment was leveled and arrangements made to meet last minute shortages, all problems were solicited and direct questions were asked to determine any circumstances of a supply or engineering nature which might interfere with successful maneuver. At this conference the Field Order was reviewed and the Administrative Order was discussed in its entirety. Especial stress was made on the submission of Periodic Reports, to FM 101-5, and staff procedure. A separate meeting was held after the general conference for the benefit of Group S-4 officers. The lack of staff understanding, relationship and procedure was especially apparent in three of the four groups; this situation, as related to reports, was noticeable during the ply of the maneuvers. Improvement was effected, however.

6. During the last stages of preparation the glider situation became especially acute, due to reasons previously stated and further complicated due to weather conditions which prevented the ferrying in of new gliders. The situation was met only by complete effort and application of all available wing personnel, the sub-depots, and officers and personnel made available. Even up to a few hours before glider serials took off, modification, repairs and inspections to determine if the glider was flyable were being conducted. The critical situation that existed in gliders cannot be emphasized too strongly.

7. In all A-4 work in this maneuver action has been generally as follows: Immediately on availability of information as to necessary accessories, follow-up was made to establish availability. Before issuing any directive, Memorandum or Order, and the Administrative Order, prior to planning was made by Wing A-4 to establish the fact that such instructions could be followed. Not only was every effort made to meet actual maneuver requirements, but the purpose of maneuvers - Training - was carried on at the same time; staff relationship, procedure and responsibility was emphasized.

RECOMMENDATIONS

1. The following suggestions and recommendations are by experience believed to be necessary for smoother, more efficient and more rapid preparation for maneuvers of this type and the consequent more successful maneuvers.

2. All modifications to airplanes and gliders should be clearly understood and set up sufficiently in advance to assure completion prior to the maneuver date. The materials for such installations or modifications should be anticipated well in advance in order to be available in sufficient time to assure the use of all equipment required for the maneuver.

3. It is believed that a standard could be reached establishing equipment lists necessary to operate a specified number of Tugs and Gliders for a particular maneuver or task or for a specified time. This would establish an equipment level comparable to the present system of "90 Day" level maintained by depots for normal operations. Every effort should be made to inform depots concerned, at the earliest possible date, the size of the proposed maneuver. This would facilitate and assure an adequate level of those things not anticipated or specifically covered in a standard list of equipment. Accessories in addition to that normally a part of an airplane or glider and necessary to such operations should be definitely established and an understanding as to its placement and use. Operations and training should be coordinated with maintenance and procurement to the end that all equipment be on hand and in proper condition for the beginning of the maneuver.

4. It is recommended that wings, Groups and Squadrons be authorized glider personnel to act as "Glider Engineering Officer" (additional duty), which would operate in the maintenance, inspection and procurement of gliders from Sub-Depots. In this connection it is believed that some clarification of echelons of maintenance as applies to gliders would eliminate some of the difficulties encountered.

5. A "Mobile Glider Repair Squadron" trained not only in maintenance but a standardized method of glider installations and operations should be made available to each Group immediately preceding and during the actual maneuver.

6. It is suggested that a method be adapted which would relieve responsible officers of responsibility of that equipment which is taken from under their control as a result of the normal play of the maneuvers; specifically, gliders and accessories which are dropped and left by all representatives of the responsible officer. It is believed possible that a system of guards for landing areas and gliders could be worked out whereby gliders and their assigned equipment would be taken care of until picked up. From the time gliders leave the control of responsible officers some method of terminating this responsibility should be worked out.

7. The personnel of Wing A-4 Section is not considered adequate to meet the proper function of a Wing A-4 headquarters under full scale operations. Specific reference is made to analyzing and processing of periodic reports from subordinate elements and subsequent reports to higher headquarters, the attention to detail of various elements comprising A-4 Section, to carry on subordinate staff training necessary to secure fullest benefit of maneuver training, these in addition to the many unanticipated details that inevitably develop under such circumstances.

8. Staff relationship and staff procedure as related to Group S-4's was vague. It is believed a prescribed policy for Group S-4's would correct this situation and enable maneuver and junior officers to better understand their duties, responsibilities and staff requirements.

R. E. Hayfield
R. E. HAYFIELD,
Major, A. C.,
A-4.

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB,
Maxton, North Carolina,
10 January 1944.

SUBJECT: Communications Report, Airborne-Troop Carrier
Maneuver, "Cutthroat", January 1944.

TO : Commanding Officer, 60th Troop Carrier Wing, AAF,
Laurinburg-Maxton AAB, Maxton, North Carolina.

1. Mission: To establish and operate communication facilities between Headquarters, 60th TC Wing, TC Groups assigned to 60th TC Wing, and 17th Airborne Division.

2. Personnel: Following personnel available for this mission, furnished by Headquarters Squadron, 60th TC Wing, 438th, 439th, 440th and 441st Troop Carrier Groups and 335th Signal Company Wing.

Classification	Hq Sq	438	439	440	441	335	Total
Radio Operator Mechanic		75	75	48	42	0	240
Radio Operators	2	27	19	7	8	18	81
Radio Mechanics		34	32	8	6	5	85
Radar Mechanics	1	14	24	25	4	0	68
Teletypewriter Operators		18	8	0	6	11	43
Teletypewriter Mechanics		8	7	5	4	4	28
Control Tower Operators		16	16	13	6	0	51
Wire Chief		6	8	4	2	2	22
Tel & Tel Equipment Rep		16	13	14	4	21	68
Message Center		3	3	5	2	11	24
Cryptographers		2	3	2	2	4	13
Switchboard Operators		10	1	0	8	8	27

3. Adequate equipment for all operations was available, however in some cases it was unsuited for the assignment, and some sets were in poor repair.

4. Results: Obtained from observation and from written reports submitted by officers in charge of all sections involved.

a. Telephone Facilities

(1) Commercial telephone circuits were used between Maxton Air Base, Lumberton, Florence, Pope Field and Camp MacKall. Field wire circuits were installed to the two groups at Maxton. Three phantom field wire circuits simplexed for teletypewriter were used with very satisfactory results.

(2) Telephone facilities proved both adequate and satisfactory. Need for more training of switchboard operators was found in some cases. In many instances telephone users failed to ring off at the completion of their calls, which caused some needless delay in the handling of traffic by the switchboard operators. The level of transmission from Pacific (Maxton) to Malta and Europe (Pope) was too low for satisfactory conversation when circuits were connected to India (MacKall) or Burma (Lumberton). Very little wire trouble was experienced during the period of the maneuver.

(3) The use made of the field telephone system is shown by the following traffic study:

(a) Total calls completed by operators on the two (2) position BD-96 switchboard (Pacific), Hq, 60th Troop Carrier Wing.

4 January 1944	- - - -	658	Calls
5 January 1944	- - - -	1083	Calls
6 January 1944	- - - -	782	Calls
7 January 1944	- - - -	1099	Calls
8 January 1944	- - - -	708	Calls
Total	- - - -	4330	Calls

(b) Total calls completed by Pacific operators to and from other switchboards, period 4-8 January inclusive.

Man Hq, MacKall (INDIA)	3 Tks	From 236	To 258	Total 494
440th Pope (MALTA)	3 Tks	From 169	To 129	Total 298
438th Maxton (PERSIA)	2 Tks	From 43	To 137	Total 180
439th Maxton (CHINA)	2 Tks	From 131	To 145	Total 276
441st Lumberton (BURMA)	3 Tks	From 129	To 111	Total 240
441st Pope (EGYPT)	1 Tk	From 76	To 65	Total 141
439th Florence (EGYPT)	2 Tks	From 105	To 86	Total 191
TOTAL	- - - -	- - - -	- - - -	1820

b. Teletypewriter Facilities

(1) Commercial teletypewriter circuits were used between Maxton Air Base, Lumberton, Florence, Pope Field and Camp MacKall. Simplex phantom field wire circuits were used to groups located at Maxton Air Base. All station and switchboard equipment army owned and operated.

(2) One teletypewriter switchboard BD-100 was installed at Hq, 60th Troop Carrier Wing with nine stations. The following traffic study shows the use and location of each station

(Communications Report, Airborne-Troop Carrier Maneuver,
"Cutthroat", January 10, 1944 Continued)

STATION		JANUARY						TOTAL	GRAND TOTAL
		3	4	5	6	7	8		
PACIFIC 60TH TC WG MAXTON AAB 2 STATIONS	FROM	11	9	10	10	22	5	67	
	TO	8	26	29	31	64	19	177	244
INDIA MAN HQ MACKALL 1 STATION	FROM	1	0	8	5	8	2	24	
	TO	2	0	1	0	6	2	11	35
PERSIA 438TH GP MAXTON 1 STATION	FROM	0	8	2	7	14	0	31	
	TO	1	0	2	4	5	2	14	45
CHINA 439TH GP MAXTON 1 STATION	FROM	0	2	1	4	11	4	22	
	TO	0	0	3	2	6	2	13	35
EUROPE 441ST GP POPE 1 STATION	FROM	3	16	9	6	7	1	42	
	TO	7	9	2	4	8	3	33	75
MALTA 440TH GP POPE 1 STATION	FROM	1	6	5	9	9	5	35	
	TO	7	3	6	5	9	5	35	70
BURMA 441ST GP LUMBERTON 1 STATION	FROM	1	5	7	3	20	8	44	
	TO	2	4	2	6	13	2	29	73
EGYPT 439TH GP FLORENCE 1 STATION	FROM	0	0	2	3	5	0	10	
	TO	1	0	2	2	8	0	13	23

This totals 275 calls from stations and 313 calls to stations. This difference is due to the use of conference calls, which proved very satisfactory.

(3) One commercial private line teletype-writer circuit was provided between Maneuver Headquarters and Headquarters, 60th Troop Carrier Wing.

(4) One commercial conference teletype-writer circuit was provided with stations located at Camp MacKall, Maxton, Pope, Lumberton and Florence. Operation satisfactory.

(5) Teletypewriter operators showed inexperience and lack of training in combined procedure. Proper tool sets were not available in all cases for the mechanics. Spare line relays should be included in the equipment of each group.

(Communications Report, Airborne-Troop Carrier Maneuver, "Cutthroat", January 10, 1944, Continued)

c. Message Center

(1) There were several violations of cryptographic security noted; these included the heading Att A-3 in clear on a coded message and the signature of the commanding officer in clear at the end of several coded messages. Little use was made of paraphrasing and messages were received with stereotyped beginnings and endings. More use should be made of code names to cut down time in coding and decoding. In several messages the use of authorized abbreviations by the code clerk would have reduced the length of the coded message appreciatively.

(2) Scheduled and special messengers made daily trips between the 60th Wing and Maneuver Headquarters. Messenger service was used frequently to various units at Maxton.

(3) Message center service overall was satisfactory.

d. Radio

(1) Six low power radio beacons were installed at the following locations, as navigational aids:

Sumter, S. C.
Conway, S. C.
Georgetown, S. C.
Wilmington, N. C.
Bluethenthal Field, N. C.
Wilson, N. C.

These beacons were of little aid as they were too weak to be received at sufficient distance to assist navigation.

(2) Two SCR-188 radio sets were used for homing stations at Clinton and Dillon. Reports indicate some satisfactory results at Dillon. Signals were received but too weak to affect compass needle.

(3) Portable radio range, carried into MacKall airport with the first air landing, was installed and in operation within three hours following the landing. Operation satisfactory.

(4) The Red Administration Net was in operation at all times. Very little traffic was handled. Operation satisfactory.

(5) Orange Net. Heavy interference existed at all times. With the exception of NCS and two other stations the results were unsatisfactory.

(Communications Report, Airborne-Troop Carrier Maneuver, "Cutthroat", January 10, 1944, Continued)

(6) Blue Net was set up and operated. No net traffic, some contact with planes.

(7) Green Net. Operation was delayed but satisfactory.

(8) All inter-plane and plane to ground nets operated satisfactory.

(9) Airdrome control. All equipment was set up. Use of the equipment and assigned frequency was not allowed at Pope Field. Regular tower personnel operated the maneuver equipment at Maxton AAB. Airdrome-control considered satisfactory.

e. Interphone Tug to Glider

(1) All equipment was tested prior to take off. All equipment checked perfectly. However, during flight on the double tow, in some instances, contact with both gliders was not constant.

f. Pigeons

(1) Pigeons were used as directed by S.O.I. No tactical use was made but birds were released for training from airplanes. All birds returned to loft.

5. Recommendations:

a. OTU assemblies should be complete and in serviceable condition when issued to groups by Base Signal Property Officer.

b. Inasmuch as radio communication is to be set up over such short range in miles, the lowest possible frequencies should be available for assignment, to avoid many of the operational difficulties encountered.

c. All Groups should be given the type equipment they will be expected and required to use, in order that they may adequately train their personnel in the installation, maintenance, and operation of the equipment.

d. All Airdrome Control should be installed and operated by Troop Carrier Group personnel at each departure airdrome, during the maneuver period, instead of by CAA Tower personnel.

e. All radio personnel need considerably more training in radio-telegraph and radio-telephone procedure, and in the use of authenticator codes and Q-Signals. Occasional security breaks were observed during the maneuver, and these indicate that considerable corrective training is in order.

(Communications Report, Airborne-Troop Carrier Maneuver,
"Cutthroat", January 10, 1944, Continued).

f. More study should be given the technical details of interphone communication between airplane and glider. Several reports were to the effect that plugs were pulled loose in the air. Such study as is made should be conducted well in advance of maneuver periods, and in advance of maneuver periods, and in advance of the commencement of tow rope modification at local Sub-Depots.

James R. Tomes

JAMES R. TOMES,
Captain, Air Corps,
Wing Communications Officer.

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB,
Maxton, North Carolina,
10 January 1944.

SUBJECT: Report of 60th T.C. Wing Advanced Command Post.
Combined Airborne - Troop Carrier Maneuvers,
January 1944.

TO : Commanding Officer, 60th Troop Carrier Wing,
Laurinburg-Maxton AAB, Maxton, N.C.

1. 60th T.C. Wing Advanced Command Post was opened at
Camp Mackall Airfield at 1200 7 Jan 44 and closed 1500
9 Jan 44.

2. Immediately upon opening a radio jeep AN/VRCI was
placed in operation to control air traffic and airplane
parking. A portable radio range was set up and was in oper-
ation on 320 KC by 1800 7 Jan 44. This range was turned on
20 minutes in advance of scheduled arrival of each Serial
and off at the conclusion of final aircraft take off of such
Serial. From approximately 0500 8 Jan 44 this range was
operating continuously because of lowering weather conditions.

3. CONCLUSIONS:

a. The method used for approaching, landing, park-
ing, unloading and clearing of Air Landing Serials at the
advance airfield was highly successful.

b. No serial operated was more than one minute
late on landing of lead aircraft.

c. It is believed that this type of Serial Air
Landing operation can be very successful on any type of
airfield including a single runway with sufficient space
on side to permit parking for unloading.

d. All serials were unloaded in less than sched-
uled time and all squadrons in all serials were ready for
take off prior to scheduled take off time. All Serials
were off on schedule with exception of last squadron Serial
20 which was held because of adverse weather conditions.

e. Some difficulty was experienced in obtaining
and maintaining radio contact with arriving Serials, app-
arently due to some crews not maintaining listening watch.

f. Squadron and Group formation leaders must have
a definite understanding of proper parking positions. Two
Squadrons parked in wrong area causing slight delays in mov-
ing unloading crews to position.

4. RECOMMENDATIONS:

a. Crews should be cautioned in briefing to main-
tain positive radio contact after original contact is made
with arrival field. This is extremely important particularly
when arriving in darkness without position lights.

b. Red and green portable signal light guns should
be available for use of traffic control, in case of radio
failure.

c. Pilots should have time check before original
departure.


Ltr., 60th T.C. Wing, 10 Jan 44, Report of 60th
T.C. Wing Advanced Command Post, contd.

d. Pilots should be briefed to give number of aircraft in formation when calling control even though they are unable to read control, as in all cases control read and answered.

e. Direct communications is desirable between advance landing field and Wing Operations where possible.

4. Attached is advanced airfield control log showing time of original radio contact, landing and departures of Serials by Squadrons.

I Incl;
Advanced airfield control log.
(in dup)


R. E. DAKE,
Lt. Col., A.C.,
Commanding Officer,
Advanced C.P.

SERIAL	FLIGHT	LEAD SHIP	INCOMING			OUTGOING			REMARKS
			NO. OF SHIPS	FIRST CONTACT	FIRST LANDING	LAST LANDING	FIRST OFF	LAST OFF	
12	1	778	10	1331	1332	1335	1414	1417	Time check-5 min slow in ship.
	2	0490	10	1340	1343	1346	1421	1423	
	3	0488	10	1347	1349	1352	1433	1436	
	4	798	10	1353	1359	1401	1440	1442	
13	1	695	11	1554	1556	1601	1644	1647	Parked in #3 position before could be corrected. Good contact 5 min out.
	2	812	11	1603	1508	1612	1649	1652	
	3	844	11	1609	1614	1617	1657	1700	
	4	3777	10	1625	1633	1637	1701	1703	
14	1	683	10	1800	18 01	1805	1840	1842	Ship unable to read us.
	2	792	10	1810	1814	1817	1849	1852	
	3	700	10	1818	1821	1826	1901	1903	
	4	682	14	1825	1828	1833	1910	1913	
15	1	799	10	2000	2000	2003	2040	2043	Could not contact until on ground. No contact even on ground.
	2	3772	10	2008	2008	2012	2049	2053	
	3	0692	10	2020	2020	2023	2059	2103	
	4	0712	10	2028	2028	2032	2108	2112	

At 2220 Army 0496 called regarding 301st landing at Mackall.

SERIAL	FLIGHT	LEAD SHIP	INCOMING			OUTGOING			REMARKS
			NO. OF SHIPS	FIRST CONTACT	FIRST LANDING	LAST LANDING	FIRST OFF	LAST OFF	
16	1	712	10	2230	2231	2235	2335	2340	688 landed with 2 other ship 3 min. before flight.
	2	0490	10	2236	2240	2244	2320	2324	
	3	0488	10	2250	2251	2255	2345	2349	1 ship landed wheels up, was not able to contact him. 1 ship in at 2325.
	4	798	9	2253	2257	2302	2354	2357	
17	1	799	8	0425	0430	0433	0510	0512	Good contact-3 ships short.
	2	3772	9	0434	0438	0441	0518	0520	
	3		10		0449	0454	0528	0530	Ship unable to read me. No contact even when parked, in front of control.
	4	0712	10	0455	0500	0507	0537	0539	
18	1	778	7	0658	0701	0708	0755	0757	Two ships short.
	2	0490	9	0704	0715	0725	0806	0808	
	3	0488	8	0712	0726	0731	0817	0820	1 ship short.
	4	798	9	0725	0735	0740	0823	0826	
19	1	812	9	0848	0851	0854	0948	0950	1 ship in at 1805; unable to contact. 055 took off at 0820 unable to contact, believed to be in flight 1. 605 (3rd flight) 492 (2nd flight) off at 0826 unable to contact them.
	2	695	10	0853	0856	0900	0955	0957	
	3	832	10	0900	0906	0910	1000	1002	
	4	854	11	0907	0911	0913	1003	1005	

Landed runway 29 parked in wrong position. Unable to contact to correct.

SERIAL	FLIGHT	LEAD SHIP	INCOMING NO. OF SHIPS	FIRST CONTACT	FIRST LANDING	LAST LANDING	OUTGOING		REMARKS
							FIRST OFF	LAST OFF	
20	1	0683	10	1053	1056	1058	1140	1142	
	2	792	10	1101	1105	1109	1145	1147	
	3	700	10	1114	1119	1122	1203	1205	
	4	682	14	1120	1129	1137			Flight held up due to weather cleared by tower.

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB,
Maxton, North Carolina,
10 January 1944.

SUBJECT: Maneuver Report on Glider Missions.

TO: Commanding Officer, 60th Troop Wing,
Laurinburg-Maxton Army Air Base,
Maxton, North Carolina.

SUMMARY OF CONTENTS

- I. Source of Information.
- II. Factual Data.
 1. Briefing.
 2. Loading.
 3. Communications.
 4. Lights.
 5. The Tow.
 6. Landing.
 7. Disposition in landing area.
- III. Conclusions.
- IV. Recommendations.

I. Source of Information.

a. The information contained in this report is based on answers to a mimeographed questionnaire completed by each glider pilot who flew the missions. The information as to where gliders landed in cases where no questionnaire was returned was supplied by the umpire section of Maneuver Headquarters.

II. Factual Data.

1. Briefing.

The briefing was considered adequate by all glider pilots with the exception of a few who incidentally, in nearly every case, were those who did not land in their assigned fields. They received the material in time, appreciated the photos and detailed descriptions of the fields. Some glider pilots held that the briefings were of too general a nature and conducted in overcrowded rooms which made it difficult to absorb the necessary information. It was suggested that the briefing be conducted by the glider operations officer of the unit to which the glider pilots belong. It was also brought out that the Airborne instructions to the glider pilots for after landing procedure insofar as the pilots' duties on the ground were obscure and confusing.

2. Loading.

In general the glider pilots were well satisfied with the loading and lashing as done by the airborne troops. There is no report of any piece of equipment coming loose in flight and very few instances are known where equipment came loose upon landing.

a. One $\frac{1}{2}$ ton truck came loose on landing after a violent nose first plunge from a stalled position at an altitude of approximately fifty feet after striking the vertical fin of a glider already

on the ground. In this glider all lashings were snapped and severe injuries were suffered by the pilot and co-pilot. It was suggested that glider pilots receive additional specialized instruction in loading and lashing on the various types of loads that they may be called upon to fly and in addition get experience in flying these various loads. Some pilots reported that the 75 mm. gun with ammunition was an exceptionally difficult load to fly and that it made their gliders so nose heavy that they were unable to keep the nose up on landing in soft soil.

b. Pilots who flew gliders loaded with the TCFE radios experienced no difficulty and reported that the load seemed well-balanced and handled well in tow and during landing.

3. Communications.

a. All gliders on both missions were equipped with interphone communication to the tug ship. Forty-eight percent of the interphones were completely satisfactory, another ten percent worked part of the time and forty-two percent never functioned. Some cases were reported in which the glider pilots on double tow were able to converse with each other but not with the tow ship and some reported only one way operation of the sets from either the tow ship or the glider end. One pilot reported that he did not test his interphone to see if it was functioning.

b. All pilots who were able to make use of their interphones praised them very highly and unanimously agreed that they assisted greatly in correcting the tow pilot during the run-in to the most desirable release point in addition to being a wonderful morale factor.

4. Lights.

a. No pilots had any difficulty in following the tow ships with formation lights on. Most pilots agreed that they could have followed the tow ships without the aid of formation lights in bright moonlight for short distances only but that smoke, haze and extreme eye fatigue would make it hazardous. Some suggested low tow positions using exhaust flares as a guide. This of course would be impossible if exhaust flame dampers were installed on the tow ships.

b. The dim blue tail lights on gliders already on the ground were visible but not confusing to gliders landing and greatly aided the pilots in avoiding landing collisions. Opinion was about evenly divided as to the possibility of seeing gliders on the ground with no lights displayed. This opinion was no doubt due to the various individuals' night vision abilities. Most pilots reported that gliders on the ground were visible to them while in the pattern until they reached the final approach leg, where they lost them against the dark background of the trees surrounding the field and did not pick them up again until a few feet from them on their ground roll.

c. Only one glider pilot failed to recognize his field on the night landing mission. All other pilots recognized their fields from five to one quarter of a mile from their release points.

d. The day landing fields marked with white bunting were recognized by all but two pilots who landed in the rope dropping zone which was marked similarly to one of the fields.

5. The Tow.

a. Ninety-two percent of the glider pilots reported that they were brought in approximately as briefed, although there were isolated cases of tug ships overtaking and crossing elements enroute. A few tug ships made poor run-ins over the glider landing zones which prevented the glider pilots from releasing and getting into their fields. It was surprising that most of the cases of poor approaches occurred over the dawn landing fields...

b. In general the interval between elements was far greater than planned. Most formations were in good shape over their take-off airdromes but evidently became separated enroute. Four cases of narrow escapes from mid-air collisions with tow planes which were evidently lost were reported enroute.

6. Landing.

a. All glider pilots who were brought in correctly flew the pattern as briefed. Those who were not brought in as briefed flew varied patterns, but most of them landed in the proper direction. Only eight instances were reported of pilots using the deceleration tail chutes. Of those who made use of them most pilots reported they so avoided possible accidents. Several gliders which overshot did not attempt to use the tail chutes. It is believed that this was due to the lack of training in the use of tail chutes. Some pilots were afraid to use them because they had never used them before. This lack of training is attributable to the shortage of tail-chutes for training purposes.

b. The parking plan did not appear to be working after the first third of the gliders had landed inasmuch as two thirds of the glider pilots reported the gliders more or less indiscriminately scattered at the time they landed. However, the fields were large enough for the number of gliders assigned to them so that the last gliders in experienced little difficulty in finding open landing lanes.

c. The roll on landing was generally very short. Half of the pilots reported they rolled fifty feet or less and about half reported rolls of a hundred feet or more, some as high as three hundred feet. The small percentage of damaged noses was attributable to the hard frozen condition of the soil which gave longer rolls than expected and was not conducive to nosing down when landing.

7. Dispersal in Maneuver Area.

a. Night Landing Mission

150 gliders took off.

5 gliders landed at Maxton.

4 gliders landed at Mackall.

1 glider landed at Pope

12 gliders made forced landings enroute.

A total of 22 gliders made landings outside of GLZ's.

A total of 128 gliders made landings in GLZ's.

Out of 128 gliders 5 failed to land in correct GLZ.

In Serial No. 7 fourteen gliders failed to reach GLZ

In Serial No. 8 eight gliders failed to reach GLZ

b. Dawn Landing Mission

97 gliders took off.

97 gliders landed in GLZ's

Out of 97 gliders 5 failed to land in correct GLZ.

8. There were no deaths attributable to glider accidents and only six injuries; two glider pilots and four airborne passengers.

III. Conclusions.

a. The briefing was adequate but showed room for improvement.

b. Loading was satisfactory. No faults in technique were observed. The heavy gun and $\frac{1}{2}$ ton truck loads are the most feared by the pilots and cause the most injuries in landing.

c. The interphone communication system has not yet been perfected and was not completely satisfactory.

d. With respect to lights.

1. The tug can be easily followed with formation lights dimmed 50%. It cannot be followed without lights.

2. The dim blue tail lights on the gliders aided greatly in the landing.

3. The three flare pot type lights remaining in a fixed position on the field are the only landing aids necessary.

e. The majority of the tug pilots flew over the landing zones as briefed. The glider pilots were able to make successful landings in nearly all cases of poor approaches.

f. The dispersal of gliders in strange fields at night is not likely to resemble any previously planned pattern.

g. All emergency glider releases in training flights and maneuver flights should be immediately checked for mechanical failure and if no structural defects noted, glider pilot investigated. There is a general fear among glider pilots of tail flutter, and often prop wash from a large formation flight can cause a glider to vibrate so that an inexperienced or nervous pilot will hit his tow release before reasoning out whether or not there is a definite structural failure.

h. For some reason there is a reaction by glider pilots to get off tow immediately upon notice of strange noises, vibration, loss of sight of tow ship, etc., rather than wait a few seconds to overcome the situation. This reaction must be overcome before a glider pilot is allowed to fly in a combat mission.

i. The dawn mission was by far the more successful of the two operations.

IV. Recommendations.

a. That glider pilot briefings be made more concise and be more carefully prepared. That these briefings be conducted by squadron glider officers after they have been briefed by group and wing glider officer. That briefings be conducted in classroom manner by small groups; several identical briefings conducted if necessary. Every man should be seated with pencil and paper in hand. That definite ground assemble points and missions be given to all pilots at these briefings.

b. That study be given to a more secure method of lashing the $\frac{1}{2}$ ton truck and that training be given all pilots in flying the various types of heavy equipment loads.

c. That the intercommunication system be experimented with further to perfect a more positive operation throughout flight.

d. That the natural color flare pot type landing lights in stationary positions be adopted as standard night landing aids. These lights to be placed: two at the approach end of the landing lane and one at the other end.

e. That glider pilots not be required to fly in tow for longer than three hours without relief.

f. That the system of split releases with a time interval sufficient to allow only one glider at a time in the traffic pattern of any one field be adopted as standard procedure.

g. That large glider operations not be attempted except under moonlight conditions or dawn landings.

Arthur T. Williams III

ARTHUR T. WILLIAMS III,
Major, Air Corps,
Ass't A-3, Glider Officer.

HEADQUARTERS
SIXTIETH TROOP CARRIER WING AAF
OFFICE OF THE SURGEON

Laurinburg-Maxton AAB
Maxton, North Carolina
10 January 1944

SUBJECT: Report of Medical Section - Operation Cutthroat.

TO : Commanding Officer, 60th Troop Carrier Wing, AAF,
Laurinburg-Maxton Army Air Base, Maxton, NC.

1. The functions of this section during Operations Cutthroat were divided into those of an administrative nature which would not exist in an actual operation of this type in an active theater of war and those functions of a tactical nature which would be required of this section in an active theater of operation.

2. Functions of an Administrative Nature.

a Ambulance Coverage Along Lines of Flight D-1 and early D-day.

1) Organization.

Ambulance coverage for all glider and parachute carrying missions was provided by establishment of six radio and telephone controlled outposts plus the utilization of Base ambulance facilities of six Army Air Bases in the vicinity. All points on lines of flights on missions on D-1 and D-day were within about twenty-five miles of a radio and/or telephone controlled ambulance outpost or an Army Air Base alerted for possible emergency calls. This coverage was provided primarily as an additional safety factor in an overland maneuver of this sort in friendly territory. Obviously such coverage could not be provided for actual over-water missions which were being simulated in this maneuver. Particular attention was directed toward adequate coverage of the glider towing serials because of the prospect of pre-mature or accidental releases.

The ambulance outposts consisted of four ambulances, one radio truck (SCR 299), two medical officers, eight medical enlisted men, and emergency equipment such as crash tools, crash splint units, plasma, morphine syrettes, litters, blankets, etc.

2) Operation

a) Communication

The system of communication with ambulance outposts worked well. During CPX prior to maneuver voice communication by radio was poor. CW communication by radio during actual maneuver was more successful. Communication by commercial and field telephones proved even more reliable than the radio communication.

b) Actual Service Rendered

Fortunately there was very little occasion to call upon the ambulance outposts. Although 10% of the gliders did not reach the drop zones, only one injury was sustained during the force glider landings. This casualty

consisted of a dislocated ankle and laceration in a glider pilot at Tabor City, NC. He was removed to Bluethenthal AAF by an ambulance from that Base.

c) Conclusions

In spite of the little actual employment of these ambulance outposts it is felt that they were worth while. In an operation of this sort the possibility of serious accident is always present. The ready availability of medical aid is desirable both from a practical standpoint and from psychological standpoint with regard to the crews and passengers flying such missions.

3. Functions of a Tactical Nature.

a Air Evacuation of Casualties

It was planned to evacuate several hundred simulated casualties by air. Every plane landing at the airhead set up six sets of litter brackets immediately after unloading. These were the middle brackets which were carried tied in place in the top of the fuselage and thus could be quickly lowered into place in the middle row. Troop Carrier planes were adequately prepared to handle two hundred and forty (240) casualties in each air landing serial. However, the maneuver was terminated prior to the establishment of necessary lines of communication from outlying ground aid stations to the division clearing station. All simulated casualties which did reach the airhead were evacuated to Maxton.

On D-day a Medical Administrative officer arrived at the airhead on Serial #11 to aid in establishing liaison between 60th Wing advanced CP control tower and the 17th Division medical clearing station. Good radio communication was established between the control tower and the Division clearing station. It is believed that this is very important in keeping the clearing station properly informed of the expected arrival of planes.

No Air Evacuation Squadron participated in this maneuver.

b Night Vision Aids

Additional instruction in the importance and methods of obtaining and maintaining dark adaptation were given to tug and glider pilots by unit surgeons. Red goggles were issued to all pilots. These were not employed by one group on it's glider mission because the pilots sat in planes on the field in complete darkness and with field completely blacked out for forty-five (45) minutes prior to take-off. Another group reported most of it's pilots enthusiastic about the employment of night vision aids. These pilots had had experience on the previous maneuver and now after two maneuvers are beginning to appreciate the value of adequate dark adaptation. Another group was attempting to employ all night vision aids for the first time and their pilots including ranking men are still not 'sold' on the value of proper dark adaptation. It seems advisable that more emphasis be placed on proper dark adaptation earlier in the training of our groups. Red goggles should be issued to pilots much earlier so that they become accustomed to their use and convinced of their value.

c Property Exchange

No medical property exchange occurred between Troop Carrier and Airborne.

d Pilot Rest

In some instances more consideration should be given to adequate time for rest for pilots in planning Movement Tables, particularly during a Training maneuver when safety to personnel and equipment can be given some consideration. Pilots can fly serials for 24 to 36 hours without much rest but in the interest of conservation of personnel and equipment they should have adequate rest if missions are to continue for three or four days. A rest of three or four hours indicated on a Movement Table does not mean that the pilots will get any rest by the time they land, fill out necessary reports, are interrogated, fed, briefed for next mission, check loading, and prepare for take-off. Because of the early cancellation of the operation this factor did not become too apparent.

e Unit Medical Care and Sanitation

Unit dispensary service of the squadrons and sanitation of squadrons on bivouac followed SOP.

f Statistics (Possibly subject to minor changes)

1) Number of Actual Casualties

a) Air Corps -3- two associated with glider landings not serious. 1 death of enlisted glider ground crew in fall from truck.

b) Airborne -2 deaths (1 associated with air phase) 76 injuries (none critical) 106 exposure cases.

c) Associated with Air Activity

1 Air Corps 3 (one death)

2 Airborne 42 (one death, parachute failure)

d) Not Associated with Air Activity

1 Air Corps None

2 Airborne 36 Injuries on ground (one death)
106 Exposure cases

e) Associated with Parachute Landings

1 Death 38 Sprains, Fractures, Contusions, etc.

f) Associated with Glider Landings

1 Air Corps One glider pilot dislocated ankle on forced landing.
One glider pilot received contusions of hip and lacerations of face in GLZ

2 Airborne 4 Injuries (1 fractured jaw, serious)

g) Associated with Tug Forced Landings - None

- 2) Simulated Casualties
220 simulated casualties were tagged by umpires for air evacuation. By the time of cancellation of maneuvers only three had been delivered to airhead for air evacuation. Any one serial was adequately prepared to receive all 220 casualties even had they arrived at airhead at the same time.
- 3) Number of Airborne Personnel Delivered by Air Corps
(Exclusive of Pathfinder and Infiltration Missions)
 - a) Dropped by Parachute 2344
 - b) Landed by Glider 1949
 - c) Landed by Plane 2680

TOTAL 6973

- d) 99.41% of men delivered by Air Corps were effective when landed.

g Conclusions and Recommendations

- 1) Night Vision Aids should be stressed more in early stages of training of each group. Red goggles should be issued to pilots earlier so that they become accustomed to their use and convinced of their value.
- 2) Pilot Rest should receive careful consideration in planning the Movement Table.
- 3) Air Evacuation. Troop Carrier aircraft can handle easily a very high rate of casualties brought to the airhead by Airborne medical sections.
- 4) Equipment. It is difficult to engage in a maneuver of this sort with the unit medical sections not in possession of their allotted tactical equipment.

William Cooley, Jr.
WILLIAM COOLEY, Jr
Major, MC
Wing Surgeon

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB,
Maxton, North Carolina.
11 January 1944

WNST

SUBJECT: Statistical Report on "Cutthroat" Operations.

TO: Commanding Officer, 60th Troop Carrier Wing,
Laurinburg-Maxton AAB, Maxton, North Carolina.

The following is submitted as Statistical data on the recently completed "cutthroat" operation:

1. There were 22 serials comprising 685 airplane missions.
2. Total number of airplane miles flown on the basis of a 600 mile round-trip per each airplane, with direct route returns and forced landings taken into consideration - 395,600.
3. Number of gliders used - - 250.
4. Number of gliders successfully completing mission-
225.
5. Number of gliders not successfully completing mission-
25.
6. Percentage of gliders successfully completing mission-
90%.
7. Total glider miles flown on the basis of a 300 mile one-way trip per each glider, with premature releases taken into consideration - - - 70,000.
8. Total gallons of gasoline consumed by aircraft during the maneuver - - - - 173,268 gallons of 91 Octane; 81,715 gallons 100 Octane.
9. Total gallons of lubricating oil consumed by aircraft during maneuver - 1912 gallons.
10. Number of Airborne troops transported by gliders -
1949.
Parachutists - - - - 2616
Others air landed - - - 2680
Total by air - - - 7245
11. Transported by gliders:
Jeeps - - - 75
Trailers - - - 21
37mm guns - - - 30
75mm How. --- - 13
Total 139
Transported by airplanes:
Jeeps - - - 184
Trailers - - - 150
37mm guns - - - 12
75 How. - - - 12
Total 358
Total by air 497

12. Tons of equipment and supplies landed with troops:

By gliders: 260 tons
 By parachute: 207 tons
 By air landings: 640 tons
 Total tons by air: 1107 tons.

13. Ton miles flown by gliders (supplies only):

78,000
 Ton miles flown by airplanes in air landings
 (supplies only): 62,100
 Ton miles flown by airplanes for parachute drop
 (supplies only): 192,000 (Total ton miles flown 332,100)

14. Passenger miles flown by gliders - - - 584,700
 Passenger miles flown by airplanes - - 1,588,800
 Total passenger miles flown - - - - 2,173,500

15. Total number of personnel involved in maneuver:

UNITS	AIR FORCES		GROUND FORCES		TOTAL	
	Officers	EM	Officers	EM	Officers	EM
Staff	19	17	30	77	49	94
Umpires	18	0	133	339	151	339
Observers	18	0	55	0	73	0
Guides	20	0	18	0	38	0
Mess & Adm	0	0	6	185	6	185
Troops						
Blue	1164*	4000*	685	9476	1849	13476
(*60th TC Wg)						
Red	0	0	247	3230	247	3230
Service Units						
Prov.M.P. Co	0	0	3	212	3	212
Prov.Serv BN	0	0	10	298	10	298
95th Signal Con-						
struction Bn Co C	0	0	6	213	6	213
715 Ord Co	0	0	6	68	6	68
135 QMC Co	0	0	6	118	6	118
410 QMC Co	0	0	4	92	4	92
	<u>1239</u>	<u>4017</u>	<u>1209</u>	<u>14308</u>	<u>2448</u>	<u>18325</u>

16. Casualties as the result of air operation:

Air Corps Non-Fatal - - - - -2
 Air Corps Fatal - - - - -0

Casualties on ground:

Air Corps Non-Fatal - - - - -0
 Air Corps Fatal - - - - -1 (Adm)

Earl R. Mohn
 EARL R. MOHN,
 Captain, A.C.,
 Statistical Officer.

HEADQUARTERS 60TH TROOP CARRIER WING
Office of the Chemical Officer,
Laurinburg-Maxton Army Air Base,
Maxton, North Carolina

WNCWTB

9 January, 1944

Subject: Report of Chemical Warfare Activities During
Cutthroat Maneuvers.

To : Commanding Officer, 60th Troop Carrier Wing,
Laurinburg-Maxton Army Air Base,
Maxton, North Carolina.

1. The major chemical activities performed by this
office during the cutthroat maneuver were as follows:

a. Groups contacted for compliance with Tech
Order No. 01-1-38 re: installation of H.C. M8 and AN-M3
smoke grenades for use as distress signals on all planes.

b. Group Unit Gas Officers informed that gas
masks would be worn as part of full field equipment.

Thomas Braim
THOMAS BRAIM,
Capt., C.W.S.,
Wing Cnl Officer.

HEADQUARTERS 60TH TROOP CARRIER WING
OFFICE OF THE ORDNANCE OFFICER
LAURINBURG-MAXTON ARMY AIR BASE
MAXTON, NORTH CAROLINA

WNOPTVW

Laurinburg-Maxton AAB.
Maxton, North Carolina
10 January 1944

SUBJECT: Report of Major Ordnance Activities During
Cutthroat Maneuvers
TO: Commanding Officer, 60th Troop Carrier Wing,
Laurinburg-Maxton Army Air Base, Maxton, North
Carolina.

1. The major ordnance activities performed by this
office during the Cutthroat maneuver were as follows:

a. Pyrotechnics

(1) A pyrotechnic kit composed of the following
items was installed in each glider used in the
maneuver:

- 1 Pistol, pyrotechnic
- 2 Signal, aircraft, red star, Parachute M11
- 2 Signal, aircraft, green star, blinker,
parachute M16
- 2 Red fuzees
- 2 Green fuzees
- 1 Bag, cloth, 20" x 8"

(2) The pyrotechnic pistols and the M11 and M16
signals were obtained from the Base Ordnance
Officers at Laurinburg-Maxton AAB. and Pope
Field, North Carolina. Shortages of 500
M11 signals, 500 M16 signals and 125 pyro-
technic pistols were reported to the Command
Ordnance Office, at Stout Field and were
shipped from Baer Field, Indiana, and Anniston
Ordnance Depot, Alabama.

(3) Eight hundred (800) red and nine hundred
(900) green fuzees were purchased from Boon-
ton, New Jersey through the 399th Sub-Depot
and were picked up by military aircraft.

b. Ordnance Weapons

(1) The 60th T C Wing, the 335th Signal Co. and
the 438th T C Group were equipped with 100%
of their authorized weapons.

(2) All personnel of the 439th, 440th and 441st
T C Groups actively engaged in the maneuver
were equipped with their authorized weapons.

(3) These weapons were obtained from the Base
Ordnance Officers at Pope Field and Laurin-
burg-Maxton AAB. and special shipments from
the Chief of Ordnance, Washington D. C..

c. Ordnance Motor Vehicles

- (1) All organizations under the jurisdiction of the 60th T C Wing were equipped with 100% of their OTU allowance of vehicles. In addition, the following vehicles were procured by this office for the units indicated below:

<u>Vehicle</u>	<u>From</u>	<u>To</u>
4 trucks $\frac{1}{4}$ ton 4x4	Base Ordnance, Maxton	60th T C Wing
3 trucks $\frac{1}{4}$ ton 4x4	Base Ordnance, Maxton	60th T C Wing
4 ambulances	Base Ordnance, Pope	60th T C Wing
1 truck $2\frac{1}{2}$ ton cargo	Base Ordnance, Maxton	60th T C Wing
24 weapons carriers	Base Ordnance, Maxton	438th T C Group
12 weapons carriers	Base Ordnance, Maxton	439th T C Group
12 weapons carriers	Base Ordnance, Pope	440th T C Group
15 trucks $\frac{1}{4}$ ton 4x4	Base Ordnance, Pope	Maneuver Hq.
28 weapons carriers	Base Ordnance, Pope	Maneuver Hq.
7 trucks $2\frac{1}{2}$ ton cargo	Base Ordnance, Pope	Maneuver Hq.
2 trucks $2\frac{1}{2}$ ton dump	Base Ordnance, Pope	Maneuver Hq.
17 weapons carriers	438th T C Group	Maneuver Hq.

- (2) In addition to the above, a complete OTU assembly of Ordnance Vehicles was issued to the 441st T C Group through the Pope Field Ordnance Officer and fifteen (15) glider towing bars were manufactured by the 399th Sub-depot and issued to the 438th and 439th T C Groups through this office.

T. Vander Woude
 T. VANDER WOUDE
 Capt. Ord. Dept.
 Wing Ord. Officer

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB
Maxton, North Carolina
10 January 1944

Subject: Maneuvers, Engineering Report

To: Commanding Officer, 60th Troop Carrier Wing,
Laurinburg-Maxton AAB, Maxton, North Carolina.

1. The following is a resume of the 60th Wing Engineering Office activities during the combined Airborne-Troop Carrier Maneuver, January 1944. The facts and recommendations suggested in this report are made in anticipation of future maneuvers.

2. AIRCRAFT: -Little difficulty was encountered in the maintenance of power aircraft. The usual troubles found in the regular inspections were taken care of day to day by the line personnel. However, several points in particular should be mentioned:

a. Tires and tubes were not always available. This delayed some aircraft in returning to immediate flying status.

b. Propeller changes and maintenance were delayed for lack of a propeller department at the 399th Sub-Depot. This also delayed some aircraft in returning to flying status.

c. Parts required for normal maintenance such as gaskets, magnetos and plugs were readily available.

d. The last minute transfer of aircraft from other bases was responsible for delay in preparing some planes for operations.

e. The glider tow release indicator worked properly and as a safety device functioned satisfactorily.

3. GLIDERS: -To obtain enough gliders actually on maneuver status (those equipped with landing lights, inter phone and decelerating chutes) was the paramount problem. It remained so until the final lift. In particular, these problems should be mentioned:

Maneuvers Engineering Report, 10 Jan 44 (Cont'd)

a. The ratio of glider mechanics available for work on the squadron gliders was less than one man for every two gliders. Attention is directed to the squadron duty roster which deplete the men available - such as guard duty and kitchen police.

b. The glider mechanics that were available for work were occupied full time in repairing and modifying squadron gliders used in the normal daily operations. Consequently, no glider mechanics were available for the coming maneuver to set aside maneuver gliders over and above those needed for normal operations.

c. The net result of squadron glider repair was to approximately equal the gliders grounded daily for repair and maintenance.

d. To obtain gliders for the maneuvers, the solution was in the Sub-Depot. It was to repair, modify and supply the additional number of flyable gliders needed for the maneuvers. However, two factors impaired this program in the Sub-Depot:

(1) The job of supplying maneuver gliders was turned over to the Sub-Depot - but not in time for them to set up the necessary assembly line to handle mass repair and installations.

(2) The gliders carried by the Sub-Depot were not surveyed at an early date to determine their immediate status. As indicated by the status report all grounded gliders were carried in the same category - regardless of the amount of work necessary to make flyable. Consequently, this was a misleading figure to those reading the status report.

This survey would have segregated the gliders into salvage status, minor damage, major damage and flyable but needing only maneuver installations. From these divisions an accurate estimate of possible maneuver gliders could have been determined.

Therefore, gliders requiring the least man hours to make flyable could have been repaired first and the gliders in the maneuver glider pool totaled daily to forecast any necessary procurement from sources other than the Maxton area.

Maneuver Engineering Report, 10 Jan 1944 (Cont'd)

The failure to make this survey was primarily responsible for the confusion which existed in the four remaining days preparatory to the first lift.

4. SUB-DEPOT: -Since the job of supplying maneuver gliders was turned over to the Sub-Depot at a late date, it resulted in some confusion. In general, these pertinent observations should be mentioned:

a. The Sub-Depot had no previously arranged plan for handling repair of gliders on a mass basis or speed-up of their own system. The plan they were using would not fully accommodate the immediate increased number.

b. Confusion existed as to specific authority in regard to the repair, inspection and movement of gliders

c. Since specific published authority was not available, duplication of effort was apparent and valuable time was lost in the remaining few days.

5. PERSONNEL: -The enlisted personnel should be complimented on their efforts. In particular, the glider mechanics, who were working under constant pressure. They illustrated their teamwork by the smooth operation during the final lifts.

6. Several occasions, during the preparatory and final stages of the maneuvers, the glider program lagged. This was due principally to the laxity of supervision.

7. RECOMMENDATIONS (Specific): -After careful observation of the preparatory stages, the following specific recommendations are suggested:

a. Wing covers of suitable light material be made available for covering both gliders and aircraft in the event of frost or snow.

b. A pool of experienced glider mechanics should be available for last minute preparation of tow ropes and glider repair.

c. The Sub-depot should have previously arranged plans for converting their facilities into mass repair of gliders or emergency operations.

Maneuver Engineering Report, 10 Jan 1944 (Cont'd)

d. That the responsibility of gliders is large enough to warrant a revised T. O. classification for Glider personnel.

8. SUMMARY (General): - From an engineering standpoint, the mechanics of the maneuvers were successful. There were available on the line both the required number of gliders and sufficient tugs in flying status plus an adequate reserve. The successful completion of the lifts and landings proved the maintenance policy on power aircraft excellent and that the gliders were in perfect flying status structurally.

9. However, events prior to the final lifts proved that the procurement of gliders and their modifications (Technical Order compliance and maneuver installations) lacked organization and previous planning.

10. After close observation, the following points stand out as those which have the most direct bearing upon the planning and successful execution of glider operations:

a. A Glider Engineering Officer must be appointed in each Wing, Group and Squadron with specific duties and authority to properly maintain gliders under his supervision. This should be a separate division from power aircraft.

b. That each group shall procure and deliver to the maneuver glider pool a certain proportion of the total number of gliders necessary for the maneuvers. This number shall be determined by the ratio of gliders assigned to the group as compared with its ability to replace the glider losses due to normal operations.

c. That the Sub-depot shall procure and deliver to the maneuver glider pool the remaining number of gliders necessary for the maneuvers.

d. That both the Sub-depot and the groups will be notified in ample time for them to set up, plan and put into operation of maintenance and repair which is commensurate with their facilities and personnel.

Roland A. Levesque
ROLAND A. LEVESQUE,
Captain, Air Corps,
Wg Engineering O.

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB,
Maxton, North Carolina
10 January, 1944.

Subject: Report on Radar Operations in Airborne - Troop
Carrier Maneuver, January 1944.

To : Commanding Officer, 60th Troop Carrier Wing, AAF,
Laurinburg-Maxton AAB, Maxton, North Carolina.

1. Mission: To make use of Rebecca-Eureka equipment
and techniques to guide flight serials to navigational check
points and drop zones.

2. Personnel: The following radar personnel were used
in this maneuver:

60th T C Wing Hq.	Wing Radar Officer 1 Radar Mechanic
438th T C Group	Group Radar Officer 4 Squadron Radar Officers 14 Radar Mechanics
439th T C Group	Group Radar Officer 4 Squadron Radar Officers 24 Radar Mechanics
440th T C Group	Group Radar Officer 4 Squadron Radar Officers 25 Radar Mechanics
17th A/B Division	4 Paratroop Officers 8 Paratroop EM

3. Details of Operation and Results Achieved.

A. Number and Placement of Beacons Used.

(1) Ten (10) AN/PPN-1's and two (2) AN/APN-2's (Modified)
were used as Eureka beacons for this maneuver.

a. Two AN/APN-2's were transformed from airborne inter-
rogators into transponder beacons, by readjustment of internal
circuits, thus producing high power beacons. Beacons were loca-
ted at Clinton, N.C., and Timmonsville, S.C., both in friendly
territory. Beacons were operated by crews drawn from 439th T.
V Group and 438th T C Group respectively.

b. Ten AN/PPN-1's were all located in tactical positions
behind enemy lines. Two weeks prior to maneuver, there were
eleven sets in Pope-Maxton area, of which at least four were un-
serviceable due to damages sustained in December maneuvers. By
D-2 day, all were in serviceable condition, in addition to one
set shipped to Maxton from Boca Raton Field, Florida. Original
plans were adhered to however, and only ten were used.

1. Dangers of frequency dislocation due to care-
lessness or damage during drop were eliminated

Report on Radar Operations in Airborne-Troop Carrier Maneuvers.

by presetting all frequencies, and soldering frequency assemblies in place.

2. Beacons were operated by four teams of three men each, drawn from 517th Par. Inf. and furnished by G-2, 17th A/B Div. Each team, composed of one officer and two enlisted men, received careful training in operation of the equipment and its tactical uses and peculiarities. Training covered two weeks, and included practice during two CPX's. All these operators showed considerable intelligence, and ingenuity in making use of features of the terrain to aid operation.
3. These pathfinders were dropped into their respective locations by parachute, at dusk, D-2 day by serials 1,2,3. One beacon was dropped at each location. All survived the landing perfectly, and operated successfully thereafter. It was decided on D-4 day, by Wing A-3 and 17th A/B G-2, that only one set would be dropped to each location, and the remainder (to be used as spares and to provide fresh batteries throughout the operation) would be brought in administratively, by truck. This procedure was followed, the remaining six sets being apportioned to the four initial locations on the basis of total operating time required by 60th Wing SOI.

(2) All operation of beacons was conducted, both as to time, frequency, and coding, exactly as prescribed in 60th Wing SOI. For Serial 9, the beacons at Derby Glider Area were moved approximately nine miles across country to Tactical Glider Zone, by the paratroop team operating those beacons.

(3) Frequencies, time of operation, and Serials flying the course, are presented below in tabular form: (All times are EWT).

a. D-1 Day

Beacon	Nature	Time Operative	Freq.		Serial	T.C. Gp. Flying
			Tx	Rx		
Clinton	navig. check pt.	2025 to 2130	B	E	4	440th
		2230 to 2400	"	"		5
Hemp	Final check pt	2130 to 2300	B	E	4	440th
		"	"	"	5	441st
PDZ #1	DZ	2145 to 2330	B	#	4	440th
		"	"	"	5	441st
Timmons-ville	Navig. check pt.	2200 to 2345	C	E	7	439th
Biscoe	Final check pt.	2130 to 0100	C	E	6	438th
		"	"	"	7	439th
		"	"	"	8	441st
GLZ 1-10	DZ DZ Final check pt.	2200 to 0100	C	E	6	438th
		"	"	"	7	439th
		2200 to 0100	C	E	8	441st

Report on Radar Operations in Airborne-Troop Carrier Maneuvers.

b. D - Day

Beacon	Nature	Time Operative	Freq.		Serial	T.C. Gp. Flying
			Tx	Rx		
Homp	Final check pt.	0715 to 0815	B	E	9	438th
		0900 to 1030	B	E	10	440th (Subst. for 439th)
Tactical G1 Zone	DZ	0730 to 0900	B	E	9	438th
PDZ1	DZ	0930 to 1030	B	E	10	440th

B. Airborne Equipment Used

(1) All available AN/APN-2 installations were used. Lead airplane of each squadron was equipped with AN/APN-2, and any additional were to immediately follow the lead ship of the group. The number of Rebecas - equipped planes used was as follows:

438th TC Gp	- - - -	4
439th TC Gp	- - - -	6
440th TC Gp	- - - -	7
441st TC Gp	- - - -	5
Total		22

All sets were in operation as prescribed in SOI.

(2) One frequency meter, in possession of Wing Radar Officer was used as standard for entire operation. All frequency meters in the Groups in 60th Wing were synchronized with the standard meter one week prior to D - Day. This standard meter was used for setting frequencies of all beacons.

C. Results Achieved During Maneuver

(1) Use of Rebecca - Eureka equipment and technique was successful throughout the maneuver. All beacons operated well, with the sole exception of the high-power beacon at Clinton, which apparently encountered mechanical difficulties. Operators in the airplanes were, for the most part, Group and Squadron Radar Officers; although in several cases, operation was made by enlisted crew members.

(2) The distances of original radar contact of each beacon are tabled below in miles. The radar homing approach commenced with the initial contact, and closed when over target beacon.

Serial 4: 440th TC Group	Clinton	Homp	1 PDZ #1
Pathfinder	2 very poor Sig.	8 clear	8 clear
95th TC Sqdn	0	15	15
96th TC Sqdn	5	0	25
97th TC Sqdn	3	17	25
98th TC Sqdn	3	13	22

Serial 5: 441st TC Group	Clinton	Homp	PDZ #1
First Plane	11	22	17
Second Plane	14	22	17

Report on Radar Operations in Airborne-Troop Carrier Maneuvers.

Note: Operators expressed difficulty in plotting a course precisely 5 degrees Right of a beacon. The use of this beacon at PDZ #1 as a check point in bringing the ships to PDZ #2 was considered helpful, however.

Serial 6: 438th TC Group	Biscoe	Derby (GLZ1)
87th TC Sqn	20	20
88th TC Sqn	40*	20
89th TC Sqn	20	4
90th TC Sqn	20	18

* This was the longest range reception of AN/PPN-1 yet encountered in Pope-Maxton area at altitudes below 800 - 900 feet.

Serial 7: 439th TC Group	Timmons-ville	Biscoe	Derby (GLZ1)
Group Commander	40	27	8
Add'l plane of			
93rd TC Sqn	42	25	3
91st TC Sqn	40	20	12
92nd TC Sqn	32	32	13
93rd TC Sqn	30	30	14
94th TC Sqn	28	8	15

Serial 8: 441st TC Group	Biscoe	Derby (GLZ1)
Pathfinder	20	18
First Sqn Leader	20	18
Second Sqn Ldr.	20	18

Note: Each beacon was received by each operator immediately upon reaching last check point immediately prior to run on beacon. Signals strong and easily followed.

Serial 9: (D - Day) 438th TC Gp	Hemp	Tactical Glider Area
88th TC Sqn	5	13
88th TC Sqn	8	7
89th TC Sqn	15	10
90th TC Sqn	15	0*

Note: 1.* Beacon had been turned off, in accordance with SOI. 90th Squadron made run after this beacon turned off.
 2. All ranges shortened on this Serial, because batteries weaker after 3 hours operation the prior night.

Serial 10: (D-Day) 440th TC Gp.	Hemp	PDZ #1
Pathfinder	0	12
95th TC Sqn	10	15
96th TC Sqn	Not operating-plane grnd.	
97th TC Sqn	15	22
98th TC Sqn	18	14

(3) Beacons at Derby on D-1 Day and at PDZ #1 on D-Day, were coded with a 2 second dash (wider pulse) every 30 seconds,

Report on Radar Operations in Airborne-Troop Carrier Maneuvers.

All radar operators flying these courses found this 'coding' helpful in distinguishing between the different indications present on the scope at one time. In addition, this was a safety measure in the event that the selectivity of the AN/APN-2 receiver was low and beacons on other transmitting frequencies were received, in addition to the desired signal.

(4) All indications received on AN/APN-2 scopes were reported to be clear and easily readable, and the homing approaches were uniformly successful. Initial reports of Group Commanders seemed to indicate satisfaction with the operation of radar, and the aid it provided in flying the prescribed courses and reaching the objectives.

4. Conclusions and Recommendations

(1) In approximately 90% of all approaches, maximum possible range of operation of AN/PPN-1 was achieved. All altitudes were below 1000 ft. In those cases where the beacon used was not received immediately upon passing the prior check point, either visual or radio, the difficulty is readily traceable to two causes:

- a. Changes in temperature between ground and air, which cause a certain amount of frequency drift in the airborne equipment. Experienced operators are required in order to do rapid tuning while in flight, and both the 440th TC Group and the 441st TC Group have not had sufficient flying experience to accomplish this with ease.
- b. Definite lack of replacement parts at either the 88th Sub-Depot, or 399th Sub-Depot. Although in most cases requisitions have already been forwarded by Signal Property Officers at both places, the parts have been too slow in coming--particularly in the case of 2C26 transmitter tubes, which bear the brunt of punishment during training periods. As a result, while all sets were operative and performed fairly satisfactorily, nevertheless they were not at the peak of operation that could be desired.

(2) All Groups functioned well throughout the maneuver, including 440th and 441st Groups which had complete lack of training before coming to this area, just prior to maneuvers. It is recommended that in future sufficient test and beacon equipment be furnished groups at Sedalia and Alliance so that the pilots, in particular, will have had some practice and experience in radar approaches prior to commencement of the intensive training period in this area. In addition, radar mechanics (849) should join the groups and be working with their squadron sections prior to arrival in this area.

(3) Technical and Supply Recommendations:

a. It is recommended that until some satisfactory factory modification is made of the frequency controls of AN/PPN-1 the practice of using solder in sufficient quantities to hold the beacon frequency stable be adopted as SOP. It is also recommended that spare batteries be available, so that new batteries can be used for all major maneuvers. Despite careful maintenance and regular recharging, the life of the batteries at peak power is clearly limited. Those used in this maneuver have been in constant use since early November, 1943, and were used in the December Maneuvers as well.

Report on Radar Operations in Airborne-Troop Carrier Maneuvers.

b. It is recommended that the Depots and Sub-Depots be contacted by HITCC in order that there be some flow of replacement parts available at Pope and Maxton. Constant prodding by Wing and Group radar officers has been of little avail. In addition to new vacuum tubes, there should be some type of electronics kits or radar mechanics' kits available. Improvisation has been feasible up to a certain point, but beyond that point it has hampered the efficiency of the squadron radar sections.

c. It is clear that ever-present receiver frequency drift in AN/APN-2 necessitates constant attention being given to Oscillator-tuning while in flight. This is greatly hampered both by the position of the transmitter-receiver behind the navigator's seat, and by the fact that these adjustments are screwdriver adjustments. The latter is most easily corrected, by the installation of tuning knobs geared to very slow tuning, and equipped with locking nuts.

d. From a tactical standpoint, it would be advisable to equip each AN/PPN-1 beacon with 50 feet of coaxial cable for the antenna cable. This would enable the placement of antennas in trees, while the pathfinder operator, and the set, can be concealed in foxholes or shrubs at the base of the tree. Tests conducted at Mobile Air Depot with the AN/TPN-1 in October 1943, showed no appreciable diminution of power output under these circumstances.

Murray W. Neitlich
MURRAY W. NEITLICH
2nd Lt., Air Corps
Wing Radar Officer

HEADQUARTERS
SIXTIETH TROOP CARRIER WING
ARMY AIR FORCES

Laurinburg-Maxton AAB,
Maxton, North Carolina,
10 January 1944.

SUBJECT: Maneuver Report on Weather.

TO: Commanding Officer, 60th Troop Carrier Wing, Laurinburg-Maxton AAB, Maxton, North Carolina.

1. FACTS.

a. Summary of weather conditions for period 13 December 1943 to 9 January 1944.

- (1) Generally good flying weather in continental or maritime Polar air existed at Laurinburg-Maxton AAB during this period except for four periods of two-three days each, in which bad weather resulted from the passage of frontal systems through or near this station. Rain, fog, low ceilings or visibilities occurred for more than 12 hours on the following days: December 25-26, December 27, 28 and 29, January 2-3, and January 5-6.
- (2) The maneuver period from January 5 to January 9 was marked by good flying weather except for 7 hours on January 6, 9 hours on January 8, and 9 hours on January 9.
- (3) A detailed analysis of the hours in which flying was favorable or unfavorable to flying is attached.

b. Use of long range forecasts.

- (1) A long range forecast was prepared by the Weather Information Branch, Washington, D.C. for the period 10 Dec 43 to 12 Jan 44.
- (2) It was of value in indicating to Wing Operations character, frequency and intensity of weather they might expect and be prepared for.
- (3) As a basis for making day to day decisions it lost its value after the first 3 days.

c. Use of short range forecasts.

- (1) Beginning December 26 a detailed morning forecast for the period 0800E-1800E was made available by 0800E every day and a detailed evening forecast for the period 1800E to 0800E was distributed before 1800E every day to group commanding officers. With these detailed forecasts was given a general forecast for a 12 to 24 hour period following the detailed forecast period.

d. Special forecasts.

- (1) Special forecasts were made whenever it became certain that the actual weather would differ essentially from that predicted in the original routine forecasts.

- (2) Whenever a planned mission required an extremely detailed forecast of, for example, wind direction and velocity, visibility, cloud cover, or percentage of full moonlight that would penetrate the clouds.
 - (3) Special warning of high winds, heavy frost, icing conditions, fog or low status were given to Wing Operations as advisable.
- e. Distribution of Weather Information.
- (1) Hourly current weather was furnished to Wing Operations and Wing Headquarters whenever conditions were near or likely to approach contact flying minimums.
 - (2) Weather information to Group Weather Officers and Group Operations Officers was available through a Wing field phone installed in the Base Weather Office.
 - (3) Routine forecasts made by Wing Weather Officers were distributed by Wing A-2 on the morning and evening of Jan 5 to 9, 1944, to Group Commanding Officers and to the Commanding Officer of the 17th Airborne Division.

2. Findings.

a. Group Staff Weather Officers who were some distance from Base Weather Office, could have given more comprehensive weather information to the respective groups if a teletype machine connected to a Schedule "A" Weather Circuit had been furnished them.

b. It was found unsatisfactory to forecast winds at 500-2500 feet from surface winds and isobar pattern alone. It was found advisable to use the latest available pilot balloon report as a basis for the forecast, so modifying it to allow for the diurnal effect and for changes in the pressure pattern.

3. Recommendations.

a. Whenever an accurate winds aloft forecast is essential for the success of a mission, a pilot balloon wind aloft sounding should be made as near to the target and time of take-off as possible.

b. A reconnaissance plane with drift meter and navigator should obtain a wind measurement over the target or as near to it as possible and as close to the desired elevations as possible, just before the take-off from the home field.

c. Staff Weather Officers should be advised in sufficient detail to allow them to present all pertinent weather information for the required period.

d. A plane for weather reconnaissance should be made available to Weather Officers as an aid to close contact with rapidly changing conditions such as sudden clearing or closing in, particularly during maneuvers.

Reginald Meyer
REGINALD MEYER,
2d Lt. Air Corps.,
Wing Weather O.

1 Incl: Hourly summary of flying weather.

HOURLY SUMMARY OF FLYING WEATHER

DATE	HOURS CLOSED TO AAF MINIMUMS	HOURS CLOSED TO LOCAL MINIMUMS	TRAINING TIME GAINED	DATE	HOURS CLOSED TO AAF MINIMUMS	HOURS CLOSED TO LOCAL MINIMUMS	TRAINING TIME GAINED
13 Dec 43	0	0	0	27 Dec 43	14	11	3
14	0	0	0	28	19	16	3
15 *	9	3	6	29	6	6	0
16	0	0	0	30	0	0	0
17	0	0	0	31	3	0	3
18 *	13	9	4	1 Jan 44	3	3	0
19	0	0	0	2	19	8	11
20	2	0	2	3	15	10	5
21	2	1	1	4	0	0	0
22	3	2	1	5	1	1	0
23	0	0	0	6	8	7	1
24	0	0	0	7	4	4	0
25	3	3	0	8	10	9	1
26	19	15	4	9	<u>11</u>	<u>9</u>	<u>2</u>
				TOTALS	164	117	47

* Due to the fact that the original records for the period 13-27 December 43 are not now available these values were obtained from copies of the originals. In a few instances hourly data was missing and the values were interpolated from existing data. Any error introduced by this method should not affect the total by more than two hours.

ANALYSIS OF FLYING TIME

Total hours involved, 28 day period.	672
Percentage hours closed by AAF minimums	24.4
Percentage hours closed by Local minimums	17.4
Percentage of total hours gained by use of Local minimums.	7.0

APPENDIX F

Red Forces -
88th Glider Inf Regt, 13th AB Div
and attached units

HEADQUARTERS 88TH GLIDER INFANTRY
Camp Mackall, North Carolina

January 12, 1944

RED FORCE REPORT

COMBINED AIRBORNE-TROOP CARRIER MANEUVER

January 6, 1944 - January 10, 1944

PREPARATION

On or about December 29, 1943, Colonel Joe A. Hinton, commanding 88th Glider Infantry was notified by Maneuver Headquarters, Camp Mackall, North Carolina, that he would command a Combat Team in a forthcoming maneuver against the 17th Airborne Division commencing December 5, 1943. Composition of 88th Combat Team: 88th Glider Infantry; 2nd Battalion, 541st Parachute Infantry; 465th Glider Field Artillery Battalion; 446th Antiaircraft Artillery, Automatic Weapons Battalion; Company "C", 129th Airborne Engineer Battalion; one company 712th Light Tank Battalion. Transportation sufficient to motorize one infantry battalion to be furnished by 13th Airborne Division.

The tactical situation and mission were as outlined in Maneuver Situation Number 1, RED, Combined Airborne-Troop Carrier Headquarters, December 16, 1943.

On December 23, 1943, commanders and staffs of the 88th Glider Infantry, 2nd Battalion, 541st Parachute Infantry, and 465th Glider Field Artillery Battalion made the initial reconnaissance of the maneuver area.

Field Order Number 1 was published December 28, 1943 designating initial tactical groupings and areas to be occupied by units of the Combat Team. The Administrative Annex outlined the initial administrative plan.

The battalion commander and staff of the 446th Antiaircraft Artillery, Automatic Weapons Battalion reported to the Combat Team commander December 30, 1943.

A Signal Operations Instruction was published December 30, 1943.

Field Order Number 2, containing the initial defensive plan, intelligence plan, demolitions plan, march and entrucking tables was published January 2, 1944.

Battalion and company commanders made detailed reconnaissance of designated sectors January 4, 1944.

OPERATION

Movement of Combat Team less one company 712th Light Tank Battalion January 5, 1944, as per Field Order Number 1. Light tank company arrived in maneuver area 1500, January 5, 1944, and moved to area 1700, January 5, 1944.

During the day of January 5, 1944, scattered BLUE patrols were reported active and two $\frac{1}{4}$ ton trucks were captured from the 446th Antiaircraft Artillery Automatic Weapons Battalion.

A conference of unit commanders was held in ABERDEEN at 1300, January 5, 1944.

At 2030, January 5, 1944, a message from the chief umpire delayed the beginning of the maneuver twenty four hours.

Movement to defensive area began at 2030, January 6, 1944, as per Field Order Number 2. Troop carrier planes and gliders were observed south of PINEHURST during movement. All units of the Combat Team arrived at assigned areas as per schedule.

One parachute battalion was reported landing two miles southeast of ABERDEEN at 2230, January 6, 1944, an unknown parachute force at Camp Mackall, and an unknown force of parachute and glider troops landed west of DOWNING CREEK.

Between the hours of 2300-0100, Battery "B", 446th Antiaircraft Automatic Weapons Battalion protecting the Combat Team forward installations was credited with having destroyed twenty five C-47 airplanes, and four CG 4-A gliders.

At 0030, January 7, 1944, the commanding officer of the 2nd Battalion, 541st Parachute Infantry reported extensive patrolling (one battalion 517th Parachute Infantry) along it's front. BLUE patrolling on the front and flanks of this battalion continued throughout the night. No contact was made on the fronts of the 1st and 2nd battalions, 88th Glider Infantry.

At 0900, January 7, 1944, a BLUE battalion, launched an attack from the west in the sector of the 1st battalion, 88th Glider Infantry, pushing RED security groups rapidly back three miles.

An immediate counterattack of the penetration was ordered to be delivered by the 2nd battalion from the south and the Light Tank company, supported by elements of the 1st battalion from the north. The attack was launched about 1100, and the BLUE force was driven back and out of action.

The BLUE parachute battalion landing southeast of ABERDEEN the previous night had moved around the east flank of the 541st Parachute Battalion and was harrasing along Highway 1 to the north.

About 1400, January 7, 1944, the 2nd battalion, 88th Glider Infantry was ordered to take up positions to defend the west flank, and the 1st battalion, 88th Glider Infantry was ordered to move by motor to ABERDEEN to assist the 541st Parachute Battalion in destroying the BLUE battalion located along Highway 1.

The attack was launched at 1530, January 7, 1944, north along Highway 1, 1st battalion, 88th Glider Infantry on the left, and the 2nd battalion, 541st on the right. The attack succeeded in driving back the forces astride Highway 1, but uncovered a strong BLUE defensive position estimated to be one battalion reinforced to the northeast.

At 1700 BLUE attacks were renewed on the west flank and Company "C", 129th Airborne Engineer Battalion was attached to the 2nd battalion, 88th Glider Infantry. The 2nd battalion attacked enemy force moving north from PINE BLUFF along Highway 1, but was stopped. The advance of the BLUE force was halted.

The 1st battalion, 88th Glider Infantry and the 2nd battalion, 541st Parachute Infantry were ordered to move by motor from positions north of ABERDEEN to take up defensive positions south of ABERDEEN blocking every entrance into ABERDEEN along Highway 1.

At 1800, January 7, 1944, the Combat Team commander was informed by higher headquarters (Commander Director) that the main RED forces to the southeast had been defeated, that the 88th Combat Team was released from its mission of defending ABERDEEN, if the tactical situation made such release desirable.

Decision was made to withdraw the RED forces to the vicinity of PINEHURST, defending that point from the south and east.

The withdrawal commenced 2100, January 7, 1944, and the Combat Team closed in the new area 0500, January 8, 1944. Defensive areas were constituted, and reconnaissance initiated.

No contact was made with BLUE until 1630, January 8, 1944.

At 1200, January 8, 1944, higher headquarters notified Combat Team commander that a RED division had arrived to reinforce the Combat Team. The division commander had taken command and ordered an all round defense of PINEHURST. 88th Combat Team was given the sector west of PINEHURST.

Units were immediately moved to the new defensive area, and by 1400 all troops were on position.

At 1630, January 8, 1944; contact with BLUE was made in the sector of Company "C", 129th Engineer Battalion, and on the left flank of the 2nd battalion, 541st Parachute Infantry on the south. BLUE, identified as the 194th Glider Infantry, drove defending line back approximately 500 yards in that area. By dark contact had been broken between the Engineers and Parachute battalion.

During the night, the reserve company of the 541st Parachute battalion was placed in the gap between the Engineers and Parachute battalion.

At 0500, January 9, 1944, the 1st battalion, 88th Glider Infantry and the Light Tank company were moved into position south of PINEHURST from which it could launch a counterattack either to the south to counter enemy advance from VINA VISTA or to the northwest to counter a BLUE advance east along the LINDEN ROAD.

About 0900, January 9, 1944, action opened on the south front, prisoners being taken from the 194th Glider Infantry (BLUE). It was estimated that the main BLUE threat would come from the west, astride the LINDEN ROAD, and all units were alerted to this estimate. About 0945, prisoners were taken along the LINDEN ROAD, identified as members of the 193th Glider Infantry.

The maneuver was terminated about 1030, January 9, 1944, before any serious threat to the RED position developed.

CONCLUSIONS

AND

RECOMMENDATIONS

1. Some difficulty in control resulted from the fact that the Combat Team was initially assembled the day the maneuver was scheduled to commence.

2. The BLUE forces commenced operation at least 24 hours prior to the time set for the maneuver, and at least forty eight hours prior to its actual commencement. Information that this would be the case should have been transmitted to RED to permit proper disposition.

3. The absence of aircraft for reconnaissance and harassing kept needed information from the RED forces and permitted BLUE freedom of movement on roads during day light.

4. Communication equipment within a Glider Regiment should be improvised and amplified. In maneuvers of this nature, where over extension is habitually necessary, control is difficult with present equipment.

5. In isolated instances umpires directed tactical movements, namely withdrawals, rather than outlining situation to tactical commander and permitting him to act in his own judgment.

6. In several instances undue rapidity of action was permitted, depriving higher commanders of normal time to gain information, make decisions, and execute movements to meet the situation.

1. That future Combat Teams be assembled at least two (2) days prior to opening of maneuvers to permit Combat Team Commanding Officer to coordinate units.

2. That each force be fully informed of all activities permitted prior to the opening hour of the exercise.

3. That some aircraft be provided each side for reconnaissance and harassing action.

4. That pertinent T/Es be studied with the end in view of improving and amplifying communication equipment within the Glider Infantry Regiment.

5. That in future exercises, umpires be specifically instructed to allow commanders freedom of decision.

6. That a more realistic timing of all action of troops in contact be enforced.

Joe A. Hinton
JOE A. HINTON,
88th Glider Infantry,
Commanding

APPENDIX G

Umpires

UMPIRES

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

11 January 1944

SUBJECT: Report of Chief Umpire.

TO : Maneuver Director, AB-TC Maneuver Headquarters.

The following report is submitted herewith on umpire activities during the 5th to 9th January maneuvers.

1. Organization:

a. Umpires were assigned on the basis listed in FM 105-5 with the exception that only one officer per company was provided for parachute units. Two officer supernumeraries were assigned to each battalion.

b. Administration of officers and enlisted men was handled through an administrative assistant, a CO, enlisted provisional company and a motor pool officer. These officers arrived with an advanced detail from the 13th Division and facilitated preparations for receipt of the remainder of the umpire personnel.

c. A copy of umpire requirements is attached as Inclosure No. 1 to the Signal Umpire's Report.

2. School:

a. For subject matter and scope of school see schedule for umpire school attached as Inclosure No. 1.

b. Umpire training could have been improved by allotting more time to subjects based on FM 105-5 and less time on other subjects.

c. A CPK of umpires should have been only sufficiently long enough to adequately test the umpire communications system.

3. Communications:

a. Wire: Company "CG", 95th Signal Battalion installed approximately 380 miles of wire. During icing conditions which caused many lines to fail, the company maintained the more important telephones by hard work and long hours. The excellent work of this company is well deserving commendation.

b. Radio: Radio nets were operated as indicated in Maneuver Memorandum No. 3. Radios were generally operated at extreme ranges and much relay work was necessary.

4. Administration:

a. Messing of umpires under a charge of 50¢ per meal proved much more satisfactory than the former system of a daily rate. This allows the umpires to depart and return on umpire duties in accordance with a tactical plan.

b. No umpires jumped or rode in gliders with units to which assigned.

Rpt of Chf Umpire contd.

c. Rations were provided umpires from Maneuver Headquarters for the duration of the maneuver.

d. At termination of maneuver all umpires reported to Maneuver Headquarters and remained overnight. This period allowed them to complete their Umpire Reports and to organize motor serials for the return to Fort Bragg. Thus umpire personnel were returned after a night's rest and a hot meal.

5. Reports of individual umpires have been submitted separately.

6. a. Report of air umpire is submitted separately.

b. Artillery action including the following salient points:

(1) Artillery Supervisor must keep informed of situation through Chief Red or Chief Blue Umpire, in order to arrange correct placing of artillery fire markers.

(2) Time should be allotted on school schedule for practical work of artillery umpires particularly marking of fires by radio.

7. Recommendations:

a. That in future AB/TC maneuvers, the same general plan be used for operation of umpire group in garrison and in the field.

b. That plans be made for better control of troops just prior to start of maneuvers when units are moving into position, when pathfinder and OSS groups are active, and both sides are trying to get a start on the other.

/s/ R. D. Graves
R. D. GRAVES
Lt. Col., Inf.
Chief Umpire

U M P I R E S C H O O L

Maneuver Headquarters
Camp Mackall, North Carolina

From 27 Dec 1943 to 4 Jan 1944

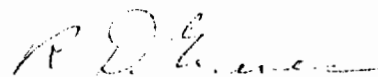
20 December 1943

<u>Day & Date</u>	<u>Hours</u> From To	<u>Personnel</u> Participating	<u>Character of Training</u>	<u>Location</u>	<u>Officer</u> In Charge	<u>Uniform &</u> <u>Equipment</u>	<u>Text</u> <u>References</u>
Mon 27 Dec	0300 -	Officers, Rad. Oprs, Chaus.	Arrival of Umpire personnel - Assignment of Quarters - Processing				
Tues 28 Dec	0800 - 0900	Officers	Organization of En & Regt'l Groups	Theatre #4	Lt. Col. Graves	As Announced	None
	0900 - 0930	"	Orientation - Importance of Umpires to Maneuvers	"	Lt. Col. Crockett	"	"
	0930 - 1100	"	Orientation of problem - Issue of Umpire envelopes and manuals	"	Lt. Col. Graves	"	"
	1100 - 1130	"	General Umpire Methods and Principles	"	Lt. Col. Cornett	"	Par 1-12, FM 105-5
	1300 - 1400	"	Fire Power, Principles and Problems	"	Lt. Col. Simenson	"	Par 13-17, FM 105-5
	1400 - 1500	"	Losses , Principles and Problems	"	"	"	Par 18-25, FM 105-5
	1500 - 1600	"	Delays, Principles and Problems	"	Captain Woirol	"	Par 26-28, FM 105-5
Tues 28 Dec	0800 - 1600	Rad Oprs & Chauffeurs	Organization and check of radio and automotive equipment.	Umpire Motor Park	Motor Park Officer		None

<u>Day & Date</u>	<u>Hours</u> From To	<u>Personnel</u> Participating	<u>Character of Training</u>	<u>Location</u>	<u>Officer</u> In Charge	<u>Uniform &</u> <u>Equipment</u>	<u>Text</u> <u>References</u>
Wed 29 Dec	0800 - 0830	Officers	Written Exam - Meaning of flags and identification	Theatre #4	Lt. Col. Simenson	As Announced	Par 8-9, FM 105-5
	0830 - 0930	"	Duties of Umpires - Arm Signals	" "	Captain Woirol	"	Par 41-44, FM 105-5
	0930 - 1030	Officers & Rad Oprs	Communication system and procedure	" "	Captain Bard	"	None
	1030 - 1130	Officers, Rad. Oprs. & Chaufs.	Communication system - Practical work	Rear of Man. Hqs.	"	"	"
	1300 - 1700	"	Reconnaissance of area using Communication System	Man. Area	Lt. Col. Graves	"	"
Thur 30 Dec	0800 - 0900	Officers	Artillery fire marking system	Theatre #4	Artillery Supervisor	"	Par 29-32, FM 105-5
	0900 - 1100	"	War Game of problem	"	Lt. Col. Graves	"	None
	1100 - 1130	"	OPEN				
	1300 - 1400	"	Instructions for CPX	"	Lt. Col. Graves	"	"
	2000 - 2000 31 Dec	Officers, Rad. Oprs. & Chaufs.	CPX (24 hr period)	Man. Area	"	"	"
Sat 1 Jan			OPEN				
Sun 2 Jan			OPEN				

<u>Day & Date</u>	<u>Hours From To</u>	<u>Personnel Participating</u>	<u>Character of Training</u>	<u>Location</u>	<u>Officer In Charge</u>	<u>Uniform Equipment</u>	<u>Text References</u>
Mon 3 Jan	0800 - 0830	Officers	Critique of CPX	Theatre # 4	Lt. Col. Graves	As Announced	None
	0830 - 0900	"	Armored Unit Umpiring	"	Tank Co Umpire	"	Par 22-24,25, FM 105-5
	0900 - 0930	"	Prisoners of War	"	Major Scheppach	"	Par 37 FM 105-5
	0930 - 1030	"	Casualties	"	Captain Brucer	"	Par 18,19,38, FM 105-5
	1030 - 1130	"	Maneuver Memorandum No. 2	"	Lt. Col. Cornett	"	Maneuvers Memo
	1300 - 1700	Officers, Rad. Oprs. & Chaufs.	Reconnaissance of area	Maneuver Area	Lt. Col. Graves	"	None
	1300 - 1700	Flag Orderlies & NCOs	Organization of Flag Orderlies and NCOs into teams	Rear of Man. Hqs.	Lt. Smith	"	"
Tues 4 Jan	0800 - 0900	All	Formation of all umpire teams	"	Lt. Col. Graves	"	"
	0900 - 1000	All S	Experiences of last maneuver	Theatre #4	Lt. Col. Cornett	"	"
	1000 - 1130	All EM	Orientation of problem Maneuver Memo No. 2	"	"	"	"
	1000 - 1100	Officers	Test	Man. Hqs. Room 8	Lt. Col. Simenson	"	All previous reference
	1100 - 1130	"	Discussion of test	"	"	"	None
	1300 - 1700	All	Issue of equipment and rations	"	Lt. Col. Graves	"	"

- NOTE:
1. Officers, Chauffeurs and Radio Operators report afternoon of 27 December 1943.
 2. NCOs and Flag Orderlies report morning of 4 January 1944.
 3. Instruction of air umpires concurrent.



R. D. GRAVES,
Lt. Col., Inf.,
Chief Umpire

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

10 January 1944

SUBJECT: Report of Chief Umpire (Blue)

TO : Maneuver Director, AB-TC Maneuver Headquarters.

The following general observations of umpire activities for the 5 - 9 January, 1944 maneuver are submitted:

1. School

a. Instruction was given in umpire school which covered FM 105-5, organization, and briefing of the problem. The majority of time was spent on organization and orientation of the problem. The school could have been improved somewhat by allotting more time to instruction of FM 105-5. Instruction was satisfactorily prepared and presented, and the students were attentive. The schedule for school gives the scope of instruction.

b. Maps were furnished each umpire by Maneuver Headquarters. This system is better than the system outlined in FM 105-5 (maps being furnished by the organization to which umpire is assigned).

2. Organization.

a. Personnel were assigned as follows:

<u>Inf & Engr Co</u>	<u>Bn (all types)</u>	<u>Regt</u>
1 officer	1 officer	1 officer
1 NCO	1 radio	radios
1 flag orderly	chauffeurs	chauffeurs
	2 officers supernumerary	

b. The assignment of 2 officers, supernumerary, per Bn. proved very beneficial and useful. Since this problem was spread over a wide area, it is doubtful if one pool of centralized reserve umpires could supply, on time, reserve umpires efficiently. The extra 1/4-ton truck and trailer without radio, which was furnished to each Bn. was necessary to assist the Bn. umpire in movement of his umpires.

c. Umpires were furnished glider units and parachute units on the same basis. Such numbers are generally sufficient except additional reserves should be assigned for parachute units, because of the aggressive patrolling inherent in their training. Umpires for patrols must be provided.

d. All umpires met units after landing. No umpires were transported by air.

3. Equipment

a. 1/4-ton trucks with radios were furnished Bn. and higher unit umpires. Trailers were furnished with all 1/4-ton trucks and proved to be very beneficial for moving equipment of umpires.

b. Maps, flags, arm bands and rations were furnished by Umpire Headquarters.

4. Communications

a. Radio communication was satisfactory. Difficulties were due to technical troubles with sets and the great

Rpt of Chf Umpire (Blue)

distances required for operation. Radios were generally operated at extreme ranges with much use being made of relays. In this connection, the Chief Blue Umpire used the Engr. Bn. SCR 284 as a floating radio to be sent to locations where relay was necessary. This was possible because of the late arrival of the 139th Engr. Bn. into the problem. It is believed that future maneuvers should provide chief Red and chief Blue umpires with an extra SCR 284 for relay purposes.

b. Wire communications were excellent and proved reliable. Co. "C", 95th Signal Bn. should be commended for its excellent performance in maintaining wire communication. Approximately 350 miles of umpire wire lines were installed.

c. During the CPX held prior to maneuvers, communications were tested and corrections made where necessary.

5. CPX - Much value was received during the CPX held prior to the maneuvers. The value consisted of a thorough test of communications, reconnaissance of meeting places for umpires with units, and the organization of motor serials for travel to dropping fields.

6. Tactical Action

a. The 17th AB Division sent 40 men and officers with the path-finders for the purpose of observing and reporting on the enemy. This action was unknown to the Chief Umpire and caused some trouble when these men precipitated combat action prior to actual maneuver time. Umpires must be provided such advance details to maintain control. This detail captured three 1/4-ton trucks and took the vehicles without drivers.

b. The 17th Division generally operated by battalion. More than one battalion was never used to attack the enemy at one time.

c. Umpire decisions followed the outline of FM 105-5 with the exception that there was a tendency to assess high losses.

d. Detailed comments on units are submitted separately.

7. Conclusions

a. School for Umpires should stress familiarity with the umpire manual FM 105-5 rather than orientation of any particular problem.

b. CPXs for umpires should be of sufficient time length to adequately test communications in the areas of meeting places of umpires and their units. All umpire personnel should be transported to their appropriate areas on one such exercise. Three hours appears generally sufficient to obtain the benefit; hence two such periods could be held rather than a 24-hour CPX.

c. A spare "floating" radio in the net of Chief Blue - Regimental umpires is desirable.

d. Umpires should meet units after units land rather than being transported by air.

Rpt of Chf Umpire (Blue) contd.

e. The organization of umpires was satisfactory.

8. Recommendations

a. That the umpire system for the next Airborne Maneuver be organized and operated on the same basis as for the 5 - 9 January Maneuver, with the following exceptions:

(1) An assistant with radio be provided the Chief Blue Umpire.

(2) CPKs for umpires be of short duration and as many such exercises held as are necessary to determine certainty of communications.

/s/ C. G. Simenson
C. G. SIMENSON
Lt. Colonel, Inf.
Chief Blue Umpire

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina
4 January Thru 9 January 1944

SUBJECT: Maneuver Report of Chief Air Umpire.

TO: Director, ABTC Maneuver Headquarters.

(D-3 day)

SERIALS #1. PATHFINDER MISSION, 438TH TROOP CARRIER GROUP.

1. Late getting off due to confusion as to whether or not the serial was to be run; also control tower held up take-off due to glider taking off. Took off at 1638 which was 15 minutes after time due at first check point.

2. Arrived first check point 1646, which was 23 minutes late, indicated altitude 500 feet, air speed 140 MPH. Was over target one minute later at 1820, indicated altitude 1020 feet, air speed 110 MPH.

3. Several chutes from parapacks fouled on plane and packs fell free, so ship returned to base for emergency landing. On the way back the chutes came off with the exception of one, which remained, and plane landed at 1852 with it on. Parachutes were hooked to plane instead of bundles.

SERIAL #2. PATHFINDER MISSION, 439th TROOP CARRIER GROUP.

1. Late, account of starting without passenger list and took off at 1837, which was 14 minutes after it was due at the first check point.

2. Did not pass over first check point in cutting corners to make up time. Arrived first objective 1814 or 5 minutes early, indicated altitude 1050 ft, air speed 110 MPH.

3. Flight schedule followed closely on return route, landing at 2115, 15 minutes late.

SERIAL #3. PATHFINDER MISSION, 440TH TROOP CARRIER GROUP.

1. Late on account of starting without passenger lists, taking off at 1637 or 26 minutes after time due at first check point.

2. Passed over first check point 34 minutes late at 1645, indicated altitude 350 feet, air speed 140 MPH. Over objective 2 minutes late at 1821, indicated altitude 1050 feet, air speed 115 MPH.

3. Flight schedule followed on return route, landed at 2046, which was 3 minutes late.

SERIAL #3P. PATHFINDER MISSION, 441ST TROOP CARRIER GROUP.

1. Late on account of starting without passenger list, taking off at 1839, or 28 minutes after time due at first check point.

2. Passed over first check point 36 minutes late at 1647, indicated altitude 400 feet, air speed 140 MPH. Arrived over objective 2 minutes late at 1841, indicated altitude 1025 feet, air speed 115 MPH. Drop zone easily identified.

3. Flight schedule followed on return route, landed 3 minutes late at 2046.

(D-1 day)

SERIAL #4. PARACHUTE MISSION, 440TH TROOP CARRIER GROUP.

1. Fifty planes scheduled but only 48 took off on account of two having engine trouble and no spare planes available. The troops and supplies in these two were left behind. First plane took off at 2001 and last at 2113. Plane #691 returned at 2219 with engine trouble, dropped his parapacks but returned with troops. Plane #4304 returned at 2243 with troops and parapacks, pilot stating that he lost the formation.

2. First plane arrived over first check point 5 minutes early at 2031, indicated altitude 600 feet, air speed 135 MPH, in trail of V's. Formation lights were on but all other lights were turned off, one hour out. Drop was on time at 2230, indicated altitude 1025 feet, air speed 110 MPH. Formation was good, lead ship turned on navigation lights over the PDZ, all troops landed in a concentrated area in the center of the field. All planes held same speed and altitude. Field marking aid was satisfactory.

3. Plane #320 returned early on account of low on gas, landing at 2301. Plane #4321 also returned early, landing at 2321, reason was that he followed his element leader #320. The formation of 44 planes landed, the first plane exactly on time at 0043 and the last at 0111. Formation passed over every check point both going and coming. Three parapacks did not drop due to mechanical failure and 38 troops did not jump for reason of air sickness and trouble with parachutes.

SERIAL #5. PARACHUTE MISSION, 441ST TROOP CARRIER GROUP.

1. Nine planes scheduled and all took off on time. Had 3 planes ready in reserve.

2. Arrived first check point one minute early, indicated altitude 600 feet, air speed 138 MPH. Arrived over objective exactly on time, indicated altitude 850 feet, air speed 110 MPH. Formation good, navigation excellent, field marking aids satisfactory, majority of troops landed on the field. Radar aids ok.

3. Return trip as per schedule, first plane landed 2 minutes early at 0100 and the last at 0113.

SERIAL #6. GLIDER AND PARACHUTE MISSION, 438TH TROOP CARRIER GROUP.

1. Fifty planes and 100 gliders scheduled. Loading was accomplished on schedule with each glider pilot supervising the loading of his glider. There was a little confusion in shifting of loads just before take-off. Fifty planes and 100 gliders took off on time in a total of 55 minutes.

2. First plane arrived over first check point at 1953, which was 3 minutes late, indicated altitude 650 feet, air speed 105 MPH. First plane hit all check points very accurately. First plane over target exactly on time at 2230, released first glider at 2231, second at 2232 and dropped paratroops on PDZ at 2235. Indicated altitude 650 feet and air speed 105 MPH at GLZ and 850 feet and 110 MPH at PDZ. Balance of formation was very ragged and the next serial came in so closely behind, that umpires could not determine when the first ended and the second started. At parachute drop zone intervals between planes were reported varying from $\frac{1}{2}$ a minute to 3 minutes. A number of these planes had navigation lights on.

3. First plane returned at 0047, 15 minutes early, average air speed 140 MPH, altitude 650 feet indicated, there was some concern as to running low on gas. Forty-nine planes returned, the first one landing ahead of the lead plane at 2330, and the last at 0145. On the return this group was considerably strung out. The 50th plane, #92075 and its two gliders, landed at Wilmington, N. C. due to engine trouble. Paratroops returned on one plane due to uncertainty of tow rope releasing. Three other planes returned with their paratroops due to pilots missing the drop field.

4. A complete report on the glider activities is covered by Annex No. 1 attached.

SERIAL #7. GLIDER AND PARACHUTE MISSION, 439TH TROOP CARRIER GROUP.

1. Fifty planes and fifty gliders scheduled. Loading O.K. fifty planes and forty-nine gliders got off on time, one glider came loose from the tug on the take-off.

2. First plane arrived at first check point at 2117, 3 minutes late, indicated altitude 600 feet, air speed 110 MPH. First plane arrived GLZ at 2333, 3 minutes late and PDZ at 2337, indicated altitude at both GLZ and PDZ 1000 feet and air speed 110 MPH. Intervals between planes at PDZ was from $\frac{1}{2}$ to 3 minutes and some had navigation lights on.

3. One plane on return trip had engine trouble and landed near Magnolia, N. C. making a belly landing, no injuries to crew. First of forty-nine planes landed at 0210 or 6 minutes late and the last plane landed at 0235.

4. A complete report on the glider activities is covered by Annex No. 1 attached.

SERIAL #8. PARACHUTE MISSION, 441ST TROOP CARRIER GROUP.

1. Eighteen planes scheduled. Eighteen planes took off on time.

2. First plane arrived first check point on time at 2223. Indicated altitude 450 feet, air speed 120 MPH. First plane arrived over objective at 0027, 3 minutes early, altitude 900 feet indicated, air speed 105 MPH. Radar and aids were good. Good formation and pattern of troops excellent.

3. Return trip made over proper course with first plane landing exactly on time at 0256 and the last 0302. This mission was performed excellently throughout.

(D day)

SERIAL #9. GLIDER MISSION, 438TH TROOP CARRIER GROUP.

1. Fifty planes and one hundred gliders scheduled, fifty planes and ninety-eight gliders took off. There was some last minute load shifting and one glider damaged during the night had to be unloaded and another loaded at the last minute. First plane took off at 0432 and last at 0544, both take-off and hook-up were slower than previous glider serials. One plane with one glider returned immediately after the take-off on account of engine failure.

2. First plane arrived at first check point at 0543 or 13 minutes late due to strong winds not corrected for. Air speed 105 MPH, indicated, altitude 650 feet. First plane arrived at target 8 minutes late at 0823, indicated altitude 650 feet, air speed 110 MPH.

3. Planes were separated on return trip, ship #776 returned

at 0920 due to being low on gas, ship #4106 landed at Myrtle Beach low on gas and the other forty-seven came in from 1011 to 1149, the first being 7 minutes early. Only eight got into formation with the lead ship and they cut corners coming in.

4. A complete report on the glider activities is covered by Annex No. 1 attached.

(D-1 day)

SERIAL #10. PARACHUTE MISSION, 440TH TROOP CARRIER GROUP.

1. Fifty planes scheduled, forty-five planes took off but one returned account engine trouble. Two more were loaded but did not take off account engine trouble. Formation took off on time with first plane at 0915 and last at 0923.

2. As this mission was not a tactical part of the maneuver, it was flown direct. The first plane arrived two minutes early at 0958 over the target. The formation was good, indicated altitude 1050 feet, air speed 115 MPH. Drop was good but on account of high winds most of troops landed in woods just past the field.

3. Return trip was made direct, all planes returned the first landing at 1030.

(D Day)

SERIAL #11. AIR LANDING MISSION, 440TH TROOP CARRIER GROUP.

1. Forty planes originally scheduled but was raised to forty-four to take in troops left on Serial 4. There was some confusion in loading due to planes not parked properly, however, forty-four planes took off on time at 0940.

2. First plane arrived at first check point at 1015, 1 minute early, indicated altitude 300 feet and air speed 130 MPH. First plane landed Mackall one minute early at 1159, and the last at 1234. Planes were unloaded rapidly and had no return cargo. First plane took off exactly on time at 1240, and the last at 1312.

3. All planes flew proper course back with the first landing one minute early at 1501, and the last at 1537. This was a very well performed mission.

SERIAL #12. AIR LANDING MISSION, 441ST TROOP CARRIER GROUP.

1. Forty planes scheduled. Forty planes took off on time with the first at 1103 and the last at 1130.

2. First plane arrived at first check point 12 minutes late at 1147 but arrived Mackall only two minutes late, landing at 1332, and last plane at 1402. Unloading very good, and no return load. First plane off on time at 1415, and the last at 1442.

3. Return flight was as prescribed, all planes returning. The first plane landed at 1628 on time and the last at 1649. The formation, navigation and landings were excellent.

SERIAL #13. AIR LANDING MISSION, 438TH TROOP CARRIER GROUP.

1. Forty planes originally scheduled but increased to forty-four to take in troops left on earlier serials. Forty-four planes took off but one returned with a feathered prop. Take-off was late due to loading and first plane was off at 1344, and the

last at 1411.

2. First plane arrived first check point 18 minutes late at 1435 due to late take-off but made up the time landing at Mackall one minute early at 1559, the last at 1638. Planes were unloaded rapidly and reloaded partially with prisoners assumed casualties. The first plane took off five minutes late at 1645 and the last at 1703.

3. Plane #3775 returned at 1648 due to engine trouble, making a single engine landing. Plane #3354 had a forced landing near Shaw Field, no injuries to crew. The other forty-three followed prescribed course with the first landing 10 minutes early at 1847 and the last at 1916.

SERIAL #14. AIR LANDING MISSION, 439TH TROOP CARRIER GROUP.

1. Forty planes originally scheduled which was increased to forty-four in order to take in troops left on earlier missions. Take-off was reported as excellent, forty-four planes took off, the first at 1535 and the last at 1606.

2. First plane arrived over first check point 6 minutes late but landed at Mackall 2 minutes late at 1802 with the last landing at 1834. Unloading was fast and first ship took off on time at 1840, the last at 1913. This was the first night air landing and entire group used landing lights.

3. Return trip was as scheduled, the first plane landed 2 minutes late at 2059, and the last at 2143.

SERIAL #15. AIR LANDING MISSION, 440TH TROOP CARRIER GROUP.

1. Forty planes scheduled and forty took off. There was a misunderstanding between the group and airborne as to whether chutes were to be carried or not but this was straightened out in time for the first plane to get off on time at 1732 and the last at 1803.

2. First plane arrived first check point at 1820, 5 minutes late and landed Mackall 2002, 2 minutes late, the last plane landed at 2037. Used landing lights. Excellent taxiing, parking and unloading. On return load prisoners of Red Forces were brought back. One plane #292053 nosed up just before take-off and bent both props. Thirty-nine planes took off on time, the first at 2040, and the last at 2113.

3. One plane #664 flew direct to base and landed at 2103 due to engine trouble. The other thirty-eight planes covered proper route and arrived on time, the first landing at 2302, and the last at 2353. The third squadron to land had two planes to land out of pattern and delayed the others.

SERIAL #16. AIR LANDING MISSION, 441ST TROOP CARRIER GROUP.

1. Forty planes scheduled, forty took off with 3 minutes reserve. Take-off was on time with good intervals between squadrons. First plane off at 2003, and the last at 2035.

2. First plane arrived first check point 8 minutes early and circled Dillon twice to lose time. First plane landed Mackall 3 minutes late at 2233, and the last at 2325. Approached too low and formation poorly spaced. Landing sequence very irregular due to pilots being lost. The last one landed between the take-off of the first two squadrons. Plane #2100786 landed with landing gear up. Unloading was good but take-off showed poor coordination between squadrons. Thirty-nine planes took off but were delayed on account of the plane landing with wheels up. First plane was off at 2322, and the last at 2358.

3. All planes returned to base, the first landed at 0125, 5 minutes late, and the last at 0221. The formation was very ragged landing with stragglers coming in late.

(D / 1)

SERIAL #17, AIR LANDING MISSION, 440TH TROOP CARRIER GROUP.

1. Forty planes scheduled. Forty planes took off on time, the first at 0210, and the last at 0240. Four planes, field numbers 291, 292, 295 and 299 returned at 0452 to 0458 with passengers and equipment on account of getting lost.

2. First plane arrived at first check point exactly on time, 0245, and landed at Mackall 3 minutes late at 0433 with the last of the 36 landing at 0510. Planes were scattered out and landing lights were used. Unloading was accomplished without delay and Red Force prisoners were taken back. First plane took off 2 minutes late at 0512 and the last at 0542.

3. Plane field number 785 got lost from the formation and returned direct, landing at 0549. The remaining 35 planes landed at 0733 to 0810, the first being one minute late.

SERIAL #18, AIR LANDING MISSION, 441st TROOP CARRIER GROUP.

1. Forty planes scheduled but group could only furnish 39, so it was changed to 39, all reserve planes had been substituted previously. 36 planes actually took off as two would not turn up properly and one had engine failure on the take-off. Take off was on time, first plane at 0435 and last at 0505.

2. First plane arrived at first check point exactly on time at 0517. First plane landed Mackall 5 minutes late at 0705 and the last at 0745. The planes were at such various intervals it took 40 minutes to land 36 planes. There was such confusion that the Wing Control Radio ordered all planes to turn on navigation lights to avoid accidents. Unloading was O.K. First plane took off 18 minutes late at 0758 and the last at 0827 due to crews late returning to planes after unloading.

3. One plane was lost from formation and returned direct, landing at 0900. The other 35 took the prescribed course back, the first landing at 0954, 4 minutes late, and the last at 1030.

SERIAL #19, AIR LANDING MISSION, 438TH TROOP CARRIER GROUP.

1. Forty planes scheduled and all 40 got off, the first exactly on time at 0629, and the last at 0704.

2. First plane arrived at first check point one minute early at 0715. First plane landed at Mackall 10 minutes early at 0850, and the last at 0915. Visibility was bad, which seemed to cause some confusion in the landing pattern. The unloading was not organized on this serial and pilots did not help any to get it going. First plane took off 10 minutes late at 0950, and the last at 1006.

3. All planes flew correct course but weather was getting bad, some pilots reported ice at 700 feet. There was some confusion in landing which was accounted for by the weather. The first plane landed 7 minutes early at 1150, and the last at 1253. All 40 planes got in.

3. All planes returned to base, the first landed at 0125, 5 minutes late, and the last at 0221. The formation was very ragged landing with stragglers coming in late.

(D / 1)

SERIAL #17. AIR LANDING MISSION, 440TH TROOP CARRIER GROUP.

1. Forty planes scheduled. Forty planes took off on time, the first at 0210, and the last at 0240. Four planes, field numbers 291, 292, 295 and 299 returned at 0452 to 0458 with passengers and equipment on account of getting lost.

2. First plane arrived at first check point exactly on time, 0245, and landed at Mackall 3 minutes late at 0433 with the last of the 36 landing at 0510. Planes were scattered out and landing lights were used. Unloading was accomplished without delay and Red Force prisoners were taken back. First plane took off 2 minutes late at 0512 and the last at 0542.

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3. One plane was lost from formation and returned direct, landing at 0900. The other 35 took the prescribed course back, the first landing at 0954, 4 minutes late, and the last at 1030.

SERIAL #19. AIR LANDING MISSION, 438TH TROOP CARRIER GROUP.

1. Forty planes scheduled and all 40 got off, the first exactly on time at 0629, and the last at 0704.

2. First plane arrived at first check point one minute early at 0715. First plane landed at Mackall 10 minutes early at 0850, and the last at 0915. Visibility was bad, which seemed to cause some confusion in the landing pattern. The unloading was not organized on this serial and pilots did not help any to get it going. First plane took off 10 minutes late at 0950, and the last at 1006.

3. All planes flew correct course but weather was getting bad, some pilots reported ice at 700 feet. There was some confusion in landing which was accounted for by the weather. The first plane landed 7 minutes early at 1150, and the last at 1253. All 40 planes got in.

SERIAL #20. AIR LANDING MISSION, 239TH TROOP CARRIER GROUP.

1. Forty planes scheduled, which was changed to 45 to make up for planes lost on other serials. Forty-five planes took off, the first at 0834 and the last at 1005.

2. First plane arrived over first check point 9 minutes late but landed Mackall 5 minutes early. The first ship was on the ground at 1055, and the last at 1140. Weather was getting bad which slowed up landing. Planes were unloading satisfactorily. First ship took off on time at 1141 and 30 got off in 27 minutes with intervals between squadrons but the other 15 were held on the ground on account of weather and were not allowed to take off until 1515 when the first of 14 ships took off, the 15th remaining on account of engine trouble.

3. All 44 planes flew directly back to their base on account of weather. The first 30 arriving from 1150 to 1253, and the last 14 from 1540 to 1543.

REMARKS AND RECOMMENDATIONS

1. Flight Routes.

With the exception of Serial 10 and 20 which were ordered to be flown direct, all serials flew the complete course, although a few cut corners to make up time. This was a vast improvement over the last maneuver.

2. Reserve Planes.

a. Although 95% of all missions were completed, this figure could have been improved had there been reserve planes available on several serials that took-off with less than the required number of planes.

b. It is recommended that the Wing Engineering Section keep a close tab on planes in commission and where possible shift or loan planes from one group to another in order for all to meet schedules. A chart showing percentage of serials completed by serial and group is attached as Annex No. 2.

3. Take-offs and Landings.

a. Take-off and landing intervals varied considerably as shown by tables attached as Annex No. 3, which was mainly due to intervals between squadrons on the take-offs, but on the landings it was both intervals between squadrons and between planes.

b. It is recommended that Group Commanders see that more practice is given in group take-offs and landings during training periods. Also more time should be given between squadrons for night landings.

4. Briefings.

a. Briefing of tug pilots reported as excellent in all four groups and pilots were given every available and known aid.

b. Briefings to glider pilots was variable in that some had good briefing, while others were very confused both as to flight and duties after landing.

c. It is recommended that more emphasis be placed on briefing of glider pilots and that each Group Commander or his representative check each squadron on their glider pilot briefings and be sure they know what they are to do after they land.

5. Staff Meetings.

a. Staff personnel in groups, and especially Wing, were not acquainted with what was going on, which was due to lack of staff meeting.

b. It is recommended that the Wing and each Group have at least one staff meeting a day during a maneuver period to acquaint the staff with the changes and latest picture of what is going on, also to get their ideas and comments.

6. Rest Periods for Crews.

a. Report on 438th Group showed that by the time the 19th Serial was flown the pilots were showing definite signs of weariness and in this umpire's belief were beyond the point of normal efficiency.

b. Report on 439th showed adequate rest periods which were used to the best advantage.

c. Report on 440th Group did not show undue lack of rest and that the rest periods available were used to the greatest extent possible.

d. Report on 441st Group showed rest periods were not adequate, especially between Serials 12 and 16, and Serials 16 and 18. There was only 2 hours and 41 minutes between the time the last plane in Serial 12 and the pilots were at stations again for the take-off on Serial 16, then from the time the last plane landed in Serial 16 to the time the pilots were at station again for Serial 18 there was only 1 hour and 39 minutes. This only gave them 4 hours and 20 minutes rest in 24 hours, with that broken into 2 periods and less time needed to get to and from the planes. The umpire at Mackall also reported this group as being in bad condition due to lack of rest and attributed the accident there to drowsiness of pilots. This group tried to get the 18th serial postponed on account of pilot fatigue.

e. It is recommended that movement tables be checked more closely and changes be made to allow longer rest periods taking into consideration possibilities of late landings and time of stations instead of take-off time.

7. Security.

a. Gliders of the 438th at Maxton were not guarded properly during day or night nor were their planes.

b. Planes and gliders of the 439th at Florence were reported as only fairly well guarded and the guards not alert. While at Maxton, their planes were reported to be inadequately guarded.

c. The security of the planes of the 441st at Pope was reported as excellent.

d. Planes of the 441st were guarded by crews sleeping in planes.

e. It is recommended that more emphasis be put on security and adequate guards furnished for planes.

8. Buzzing Objective Landing Fields.

Recommended that on future maneuvers, all captured enemy fields be buzzed once by each group before landing. It is okay not to do it on known fields but on unknown fields the pilots should have a look at the field before their first landing on it, and also, by circling it gives better opportunity of breaking formation for landing. This recommended procedure is reported to be SOP overseas by Troop Carrier pilots who operated in Africa, Sicily and Italy.

9. Night Blackout Landings.

More training should be given in night blackout landings as a number of pilots had to use landing lights in each serial and all of them in the first serial to come into Mackall at night.

10. Sleeping and messing facilities at Lumberton were reported as inadequate.

11. Unloading at Objective Fields.

A vast improvement over the last maneuver was shown in unloading at the objective field, but pilots could improve it still more by giving all possible assistance and direction.

12. Night Training.

From the number of planes lost and straggling approaches to the glider landing and jump fields it is obvious that the pilots need more training in navigation and the flying of night missions.

13. Recommend that Future Maneuvers be made more Tactical for all Units.

a. In this maneuver all group and squadron CO's had been over the exact route and many of the glider pilots had been over these fields. This should not be allowed.

b. Ground radio jeeps were driven in when they should have been flown.

c. Enemy situations were apparently not studied enough before mapping routes as they were too near red anti-aircraft installations, which would be flown over if moved a very short distance or planes a little off course.

14. Recommend that a system for the effective use of glider pilots after landing be standardized and coordinated between Airborne and Troop Carrier. This system must be thoroughly instilled into the glider pilots and the airborne officers under whose control the pilots come after landing.

15. Copy of Medical Air Umpire's Report is attached as Annex No. 4.

JOHN C. BENNETT
Lt. Col., Air Corps
Chief Air Umpire.

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina
1 January Thru 9 January 1944.

REPORT ON GLIDER OPERATIONS

1. As a whole the glider operations were much better than the last maneuver. On the first two glider serials 85% arrived which was just about the same as on the last maneuver, but on the last glider serial 97% arrived at the glider landing fields. There was a vast improvement in the flying technique of the glider pilots which is shown by the overall average grade of 72% on Serial 6 and 7 and 85% on Serial 9. While on the last maneuver the overall average grade of the glider pilots was only 49%.

2. The following report from the Chief Glider Umpire covers all glider activities with grade sheets attached.

SUBJECT: Report on January Maneuver (Consolidated from Individual Reports of Mackall Glider Instructors)

TO: Chief Air Umpire, Combined Airborne-Troop Carrier Maneuver Headquarters, Camp Mackall, North Carolina.

1. General Statistics.

a. The 438th took off one hundred (100) gliders of which eighty-seven (87) landed in the prescribed fields and of which four (4) landed in prescribed fields other than those designated. The 439th took off fifty (50) gliders of which forty-one (41) landed and one (1) was in a prescribed field other than designated. This gives a total of one hundred and twenty eight (128) in the fields. The other twenty-two (22) were scattered all along the route, three (3) landing at Mackall.

b. Night landing: First tug of the 438th arrived Field #1 at 2228 (scheduled 2230), the last tug came over at 2320. The first tug of the 439th came over at 2332 (scheduled 2330), the last tug 0002. The 438th brought forty-five (45) tugs over the area, the 439th brought forty-six (46).

c. Daylight landing: The 438th took off ninety-seven (97) gliders out of one hundred (100) planned of which ninety-seven (97) landed in tactical area. Of these, two were a short distance away from the designated fields in the rope dropping area and two were in designated fields other than those briefed. The tug runs were very erratic.

d. Intercommunication: All units in the night show were equipped with interphone. Approximately one-half of the glider pilots interviewed reported excellent operation and were completely sold on the aid given them by the equipment. However, the majority of the pilots' lack of efficient communications was in many cases seemingly due to improper circuiting or to some cause which gave them faulty communication.

e. Deceleration Chutes: All night gliders were equipped, but only ten or a dozen of the day gliders. In the night landing a comparatively small percentage of pilots utilized the chutes. One or two when used failed to open, were "streamers". In almost every case they proved of vital aid. Very few cases were reported of pilots, who, although needing them, failed to use them in the night landing. Several pilots admitted that they had forgotten they had chutes. It was generally considered that pilots did not know how to use the chutes and recommended that detail instructions be given.

f. Casualties: Of the 53 casualties reported by the Flight Surgeon five (5) occurred in gliders. Of these, the most serious was a possible hip fracture sustained by a pilot. The other four (4) were all passengers. It is interesting to note that 4 out of 5 received face injuries. In the day time mission no injuries were sustained. Two (2) deaths were reported, one a parachutist whose chute failed to properly open, the other a Red Force officer killed in a truck during the blackout.

g. Navigation Lights: A very small number of tows showed any, that number being about equally divided between tugs and gliders. However, a large percentage of the tugs showed red or white lights in the cabin which were quite bright throughout an arc of about 140 degree through the open door on the left side.

h. Lights after Landing: In one field all gliders turned on all lights after landing. In all other fields, the only lights showing, with very few exceptions, were blued tail lights.

i. Field Lighting System: All fields were marked by three stationary flare pots natural color in the normal over 2 to 1 plan. This system was generally considered eminently satisfactory by the glider pilots.

j. Glider Approach Patterns: These were generally very good. In many cases despite the difficulty attendant upon the varied distance of tugs from the landing areas, glider pilots used considerable judgment and ingenuity in effecting sensible and effective approaches.

k. Use of Pilots after Landing: Again there seemed to be no coordinated plan. Pilots and Airborne alike were in considerable doubt as to the specific job to be done.

l. Dispersal: In the night landing the dispersal, while considerably superior to that observed in the December Maneuver, was a long way from what was planned. This was due mainly again to the failure of pilots to take sufficiently into consideration the soft soil.

m. Glides: A far higher percentage of normal gliders was observed than in the December Maneuver, although much is left to be accomplished in this regard.

n. Damage to Gliders: An extremely small percentage can be considered washouts although there were the usual broken gears, noses and tail wheels. The number of these was far less than in the last maneuver.

2. Remarks at Random.

a. Briefings again were variable in some fields. Pilots were briefed at various times, the last time being 1600 on the day of the night landing.

b. There seems to be absolutely no question that interphone, accurately and effectively hooked up, is mandatory for any such operation. This statement is based on the enthusiasm with which the successful use was reported by glider pilots who had been helped by tug pilots to recognize their fields or who had helped tug pilots to make the proper approach run. There were more reported cases of the latter than the former. Quite a few pilots reported that they did not use this system very much because of no need for it, but it seems obvious that its use is recognized only when there is a real need.

c. On the morning landing, although the final approach was made approximately one half hour after dawn, the tug formation was extremely erratic. Approach headings, approach distances from the fields, intervals and altitudes between the tugs were extremely variable and disorganized. Glider pilots reported that their flights were of 4 hours duration.

3. Conclusions.

a. In my opinion the emphasis on glider work should be applied equally to tug pilots and glider pilots since the success of a glider mission depends more on the tug pilots than on the glider pilots. There is a necessity for night training in all its phases.

b. A better method for formation assembly must be devised.

c. A system for the effective use of glider pilots after landing must be standardized and coordinated between Troop Carrier and Airborne. This system must be thoroughly instilled into the glider pilots and into the Airborne officers under whose control the pilots come.

d. It is mandatory that plans for any operation be established well in advance, briefed thoroughly and maintained thereafter.

/s/ Leeds Mitchell, Jr.

/t/ LEEDS MITCHELL, JR.,
1st Lt., Air Corps
Chief Glider Umpire.

PERCENTAGE OF SERIALS COMPLETED

SERIAL NO.	438th T. C. Group				439th T. C. Group				440th T. C. Group				441st T. C. Group			
	Number of Planes			Percent Completed	Number of Planes			Percent Completed	Number of Planes			Percent Completed	Number of Planes			Percent Completed
Required	Took off	Completed Mission	Required		Took off	Completed Mission	Required		Took off	Completed Mission	Required		Took off	Completed Mission	Required	
4									50	48	44	88%				
5													9	9	9	100%
6	50	50	49	98%												
7					50	50	49	98%								
8													18	18	18	100%
9	50	50	48	96%												
10					50	44	44	88%								
11									44	44	44	100%				
12													40	40	40	100%
13	44	44	41	93%												
14					45	44	44	98%								
15									40	40	38	95%				
16													40	40	39	98%
D/1																
17									40	40	35	87%				
18													40	36	35	87%
19	40	40	40	100%												
20					45	45	44	98%								
TOTALS	184	184	178	97%	190	183	181	95%	174	172	161	93%	147	143	141	96%

TOTAL ALL GROUPS

Number of Planes Required..... 695
 Number of Planes Took-off..... 682
 Number of Planes Completed Mission.. 661
 Percent Completed..... 95%

TAKE-OFFS FROM DEPARTURE BASES

SERIAL NO.	438TH GROUP				439TH GROUP				440TH GROUP				441ST GROUP			
	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTERVAL
4									48	2001-2013	12'	15.3"				
5													9	2026-2029	03'	22.5"
6		Glider Serial														
7						Glider Serial										
8													18	2158-2204	06'	21.2"
9		Glider Serial														
10									44	0915-0923	08'	11.2"				
11									44	0940-1013	33'	46.0"				
12													40	1103-1130	27'	41.5"
13	44	1344-1411	27'	37.7"												
14					44	1535-1606	31'	43.2"								
15									40	1732-1803	31'	47.7"				
16													40	2003-2035	32'	49.2"
17									40	0210-0240	30'	46.2"				
18													36	0435-0505	30'	51.4"
19	40	0629-0704	35'	53.8"												
20					44	0834-0906	32'	44.6"								
TOTALS	84		62'	45.4"	88		63'	43.9"	168		102'	37.3"	143		98'	42.6"

LANDINGS AT OBJECTIVE FIELDS

SERIAL NO	438TH GROUP				439TH GROUP				440TH GROUP				441ST GROUP			
	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTER-VAL
11									44	1159-1234	35'	48.8"				
12													40	1332-1402	30'	46.1"
13	43	1559-1638	39'	55.7"												
14					44	1802-1834	32'	44.6"								
15									40	2002-2037	35'	53.8"				
16													40	2234-2325	51'	78.4"
17									36	0433-0510	37'	63.4"				
18													35	0705-0745	40'	70.6"
19	40	0850-0915	25'	38.4"												
20					44	1055-1138	43'	60.0"								
TOTALS	83		64'	47.4"	88		75'	52.3"	120		107'	54.8"	115		121'	64.8"

ANNEX NO 3 B

TAKE-OFFS FROM OBJECTIVE FIELD

SERIAL NO.	438th Group				439th Group				440th Group				441st Group			
	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTERVAL
11									44	1240-1312	32'	44.6"				
12													40	1415-1442	27'	41.5"
13	43	1645-1703	18'	25.7"												
14					44	1840-1913	33'	46.0"								
15									39	2040-2113	33'	52.1"				
16													39	2322-2358	36'	56.9"
17									36	0512-0542	30'	51.4"				
18													35	0758-0826	28'	49.4"
19	40	0950-1006	16'	24.6"												
20					*30	1141-1219	38'	78.6"								
TOTALS	83		34'	25.2"	74		71'	59.1"	119		95'	49.1"	114		91'	49.2"

* The long take-off here was due to weather

LANDINGS AT DEPARTURE BASES

SERIAL NO.	438TH GROUP				439TH GROUP				440TH GROUP				441ST GROUP			
	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTER-VAL	PLANES	TIME	TOTAL TIME	INTERVAL
4									44	0043-0111	28'	39.0"				
5													9	0109-0113	04'	30.0"
6	49	0047-0145	58'	72.5"												
7					49	0210-0235	25'	31.2"								
8													18	0256-0302	06'	21.2"
9	48	1011-1149	98'	125.1"												
10										Not Checked						
11									44	1501-1537	36'	50.2"				
12													40	1628-1657	29'	44.6"
13	41	1847-1916	29'	43.5"												
14					44	2059-2143	44'	61.4"								
15									38	2303-2353	50'	81.1"				
16													39	0125-0221	56'	88.4"
17									35	0733-0810	37'	65.3"				
18													35	0954-1030	36'	63.5"
19	40	1150-1253	63'	96.9"												
20					30	1150-1253	63'	130.3"								
					14	1540-1543	03'	13.8"								
TOTALS	178		248'	85.5"	137		135'	60.9"	161		151'	57.7"	141		131'	57.7"

DAWN GLIDER LANDINGS SERIAL 9

FIELD	ARRIVAL TIME	NUMBER LANDED		RELEASE	PATTERN	LANDING	DISPERSAL	JUDGE- MENT	DAMAGE			USED CHUTES	IN WRONG FIELD	GLIDE
		ASSIGNED	ACTUAL						NONE	SLIGHT	BAD			
12	0826 0925	25	25	68	100	100	36	96 100	25	0	0	0	0	86
13	0829 0938	25	23	68	100	100	64	100	22	0	0	0	0	100
14	0823 0936	25	25	100	96	96	50	96	24	1	0	0	1	90
15	0825 0945	25	25	88	84	84	70	80	19	0	1	0	1	86
TOTAL	0826 0945	100	97	81	95	95	56	92	90	6	1	0	2	90

Overall average on all Pilot technique 85% and less dispersal 91%

NIGHT GLIDER LANDINGS - SERIAL 6 & 7

FIELD	ARRIVAL TIME	NUMBER LANDED		RELEASE	PATTERN	GLIDE	LANDING	DISPERSAL	JUDGE-MENT	DAMAGE			USED CHUTES	IN WRONG FIELD
		ASSIGNED	ACTUAL							NONE	SLIGHT	BAD		
1	2232 2400	15	11	100	73	55	73	55	82	2	7	2	1	0
2	2228 0004	15	13	92	70	70	60	40	54	6	4	3	0	1
3	2235 2356	14	10	80	70	50	70	20	50	7	1	2	3	0
4	2233 2355	16	12	75	75	92	83	25	58	2	7	3	2	0
5	2241 2350	14	13	92	77	100	85	30	77	9	1	3	3	0
6	2235 2255	10	7	100	100	100	70	43	70	6	1	0	0	1
7	2235 2259	14	12	66	66	42	75	50	58	7	3	2	2	0
8	2243 0008	14	14	93	93	57	78	50	78	10	2	2	1	1
9	2235 0015	14	15	80	80	86	93	86	86	10	4	1	3	1
10	2235 2320	8	6	100	100	66	100	50	100	4	1	1	2	1
11	2232 2354	16	15	100	73	60	87	34	54	10	2	3	2	0
AVER- AGE	2228 0008	TOTAL 150	TOTAL 128	88	78	70	81	45	72	TC- TAL 73	TOTAL 33	TC- TAL 22	TOTAL 19	TOTAL 5

Overall average on all pilot technique - 72% and less dispersal - 78%

COMBINED AIRBORNE-TROOP CARRIER MANEUVER HEADQUARTERS
Camp Mackall, North Carolina

10 January 1944

SUBJECT: Report of Air Medical Umpire.

TO : Chief Air Umpire.

1. The plan for the administrative medical care of Air Corps personnel was exceptionally well planned and executed.

a. This plan provided adequate care at departure bases, along the line of flight, and at landing areas.

b. The administrative medical plan evolved by the Wing Surgeon for the coverage of the various flight courses flown by the serials was excellent and commendably executed.

(1) This plan utilized existing facilities at various air bases throughout the maneuver area and the organic medical personnel and equipment of the respective groups and squadrons.

2. The undersigned personally visited and checked the above plan by flying to Lumberton, Florence, Sumter, Wilmington and Goldsboro, where existing facilities were checked and liaison established. Remaining flight courses were checked by air for terrain difficulties.

3. The following observations are based on checks made on approximately twelve complete plane crews.

a. The majority consensus of opinion of the pilots was that the briefings were too long.

b. Approximately 72% of personnel, enlisted men and officers were not wearing their identification tags.

c. Proper provision for adequate rest of pilots was not made in all cases.

d. Provision for meals was not cared for by some squadrons.

e. Adequate instructions in night vision and dark adaptation was given.

f. Complete instructions were not given all pilots as to what they should do upon arrival at Mackall Airfield with reference to evacuation of casualties.

g. Pilots and crews should have bathed, shaved and put on clean clothes before beginning tactical mission to lessen the chance of infection following injury.

h. Comment with reference to air evacuation of casualties cannot be made, due to the fact so few were evacuated by air.

4. It is recommended:

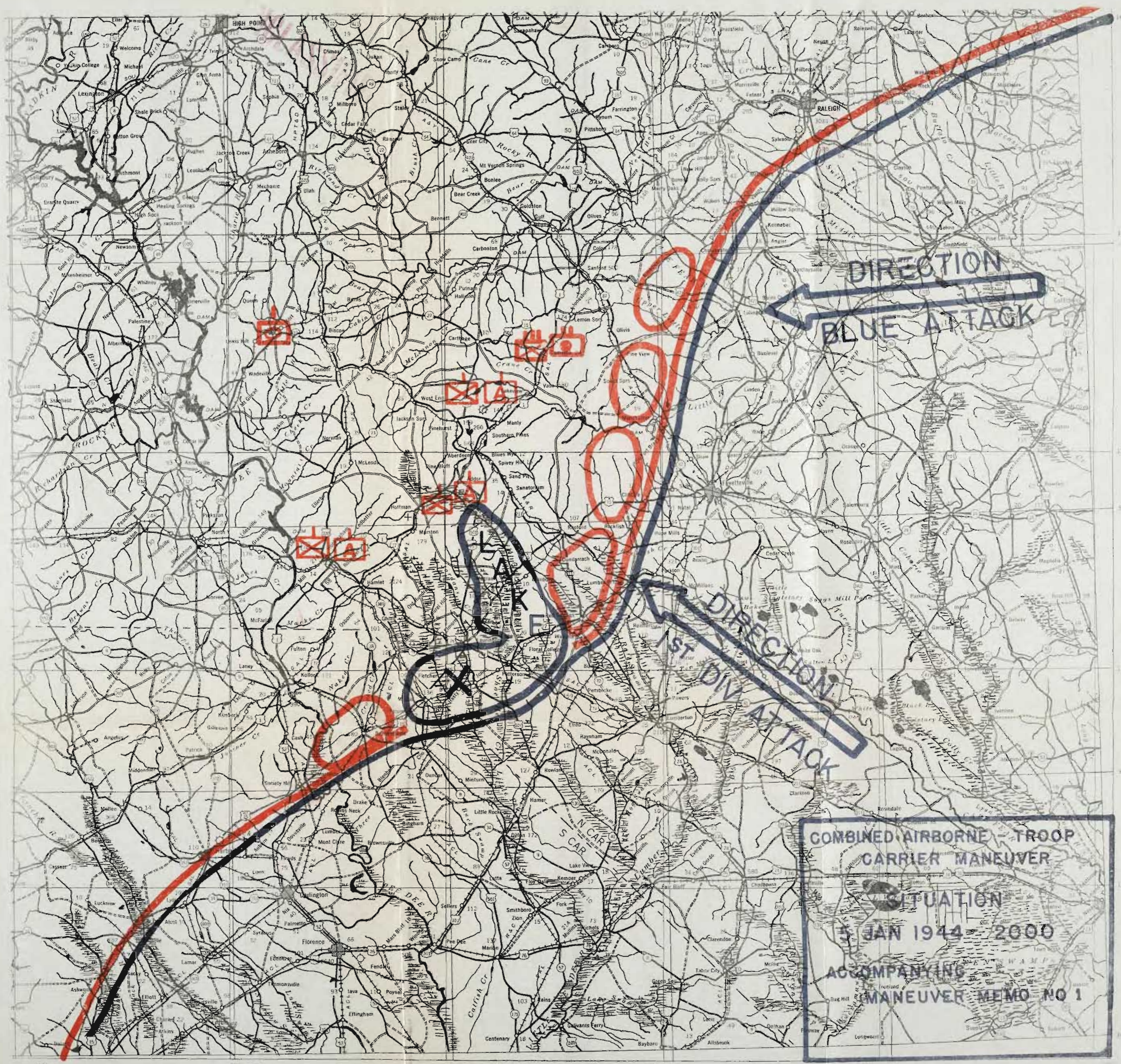
a. That Command make more definite efforts to relieve fatigue in air crew members during prolonged operations.

b. Rigid enforcement of regulations requiring wearing of identification tags.

c. Adequate provision for air crews to be fed properly during operations.

/s/ R. T. Jenkins
/t/ R. T. JENKINS
Lt Colonel, MC
Air Medical Umpire

Scale: 1:500,000
0 10000 20000 30000 40000 50000 60000 70000 80000 90000 100000
0 10 20 30 40 Miles
0 10 20 30 40 50 60 70 80 90 100 Feet

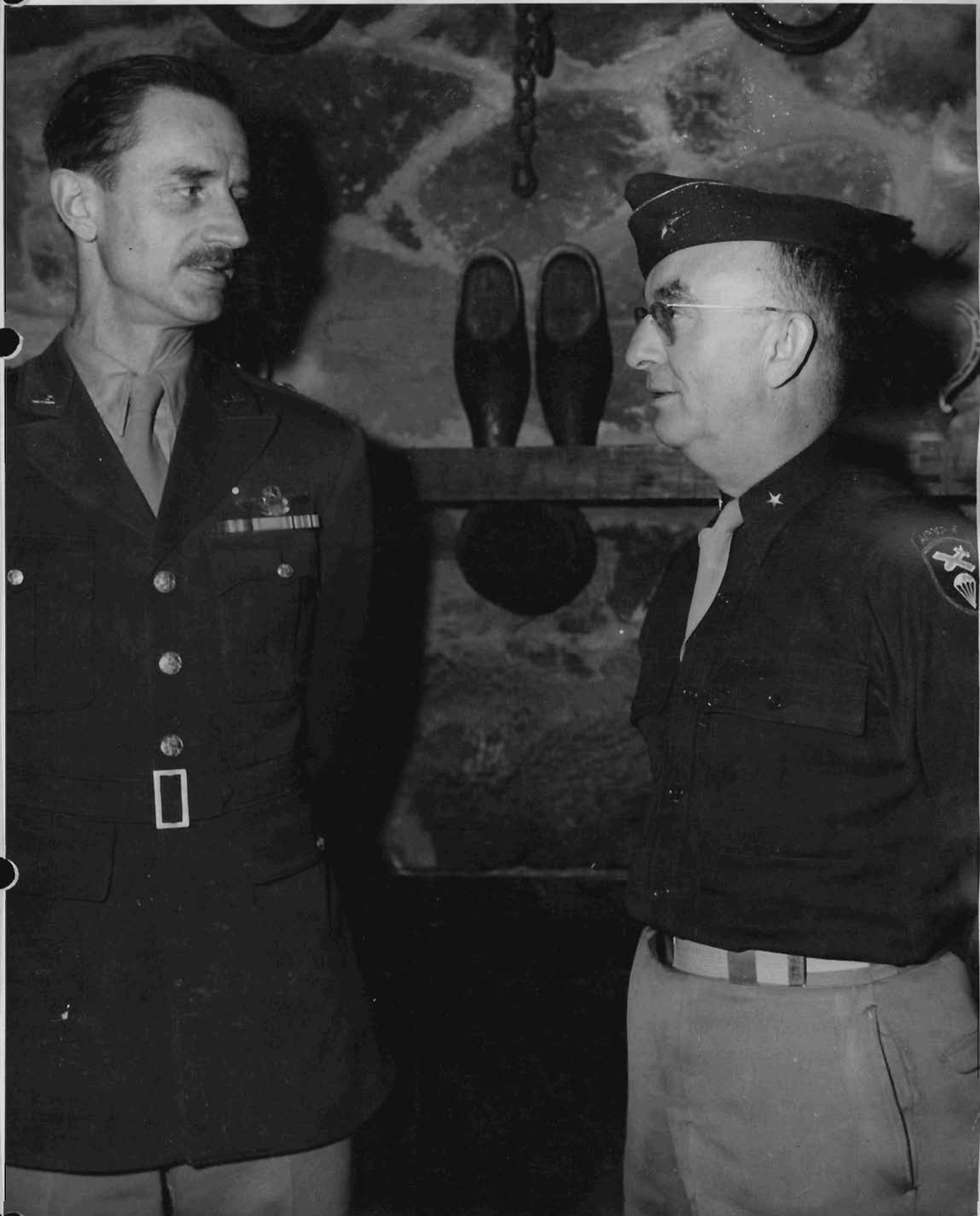


COMBINED AIRBORNE - TROOP
CARRIER MANEUVER
SITUATION
5 JAN 1944 - 2000
ACCOMPANYING
MANEUVER MEMO NO 1

APPENDIX H

Photographs

PHOTOGRAPHS



Brigadier General Evans

Brigadier General Donovan

Directors



I
PARACHUTE DROP



II
GLIDER LANDING - NEAR DERBY



3. GLIDER LANDING FIELD



4. PARACHUTE DROP



#5 - Leaving a Glider



#6 - Parachute -- Communications



7. HE HAS JUST LANDED.



8. MACHINE GUN POST.



9. Bazooka Post



10. Division Radio



11 - Outpost Position



12 - Blue Infantry Advancing North of Aberdeen



13 GUN CREW - 446th AAA AW BN



14 BLUE ADVANCE



15. 466th AA Bn.



16. Field Artillery Position



17. OBSERVERS



18. UMPIRE TELEPHONE



19. Glider Recovery



20. Umpires



21 - Commanding Officer, Headquarters, Red Forces



22 - 712th Tank Battalion awaiting to attack



23. COLD WORK



24. AAA AW



25. Blue Troops Advancing



26. Blue Troops Advancing



#27 - Umpire Communications



#28 - 75MM In Action



29 AIR RESUPPLY



30 MANEUVER SURGEON IN FIELD



31 - C-47 Recovering Glider by aerial pickup



32 - Picking up Glider

COMBINED ARMS RESEARCH LIBRARY
FORT LEAVENWORTH, KS



3 1695 00255 8559

H

APPENDIX I

Maps

MAPS

UNCLASSIFIED

UNCLASSIFIED