EXERCISE 3.

EXERCISE 3

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OPERATIONS
FIELD EXERCISE U.S.

Maps: Operations Map

I - INTRODUCTION

1. Purpose

a. To provide a tactical situation which requires a division to make a landing-assault under realistic conditions and to provide for, (or represent to), this unit the type of support from sea and air which it could logically expect.

2. Methods of presentation

a. A General Situation, (air, Navy and ground), is included to show only the necessary part of the Force Plan which must be known to insure a general picture of the type operation.

b. A Special Situation "10th Div" is included to show in more detail the tactical plan of the division commander, orders that would be received from division, and support which could be furnished.

3. Assumptions - (See Appendix to Annex # 3, map)

a. The BARNSTAPLE BAY area is assumed to be part of the coast of FRANCE. The coast is assumed to be as shown on the map between MORTE POINT and HARTLAND POINT, (both incl), and to run due north from ROCKHAM BAY and due south from HARTLAND POINT.

b. All territory to the east of this coast line is assumed to be on the continent of Europe.

II - GENERAL SITUATION

1. Mission of Task Force

a. Recent directives from GHQ Allied Forces established TASK FORCE U.S. Units of the force are now located in HOMELAND, approximately 50 miles southwest of LANDS END. Upon completion of training, Force U.S. will sail, date to be announced, with the mission of making a landing and establishing a beachhead on the NORTH DEVON shore between BULL POINT and APPLEDORE. TASK FORCE U.S. is suppoted by the 20th Air Force (Tactical), now based in HOMELAND. 8th Air Force and the Metropolitan Royal Air Force also based in HOMELAND, continue to wage a strategic offensive.

b. The attack of TASK FORCE U.S. is accompanied by a smiliar attack on a beachhead area some 10 miles to the north by a British Force called FORCE GEORGE.

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For purposes of this exercise it is assumed that the components of FORCE GEORGE, ground, air, and sea are the equivalent in strength of Force U.S.

2. Order of Battle

a. Ground

Hq Task Force U.S.
Army Troops Incl 101st AA Brig
XVI Corps
    10th Div
    11th Div
    12th Div
    ---- Corps Troops
XVII Corps
    13th Div
    14th Div
    15th Div
    Corps Troops
20th Armored Div
30th Airborne Div
99th Paratroop Regt
100th Ranger Regt

b. Air

Hq 20th Tactical Air Force
9 Medium Bomb Groups (B-25's and B-26's)
4 Light Bomb Groups (A-20's)
6 Dive Bomb Groups (A-36's)
13 Fighter Groups (7 gps P-47 6 gps P-51)
1 Night Fighter Group
9 Troop Carrier Groups (C-47 w/CG-4 Gliders)
2 Observation Groups (P-51)
1 Photo Group (F-4's and F-5's)

c. Navy

6 Battleships
6 Cruisers
24 Destroyers
4 LCR
16 LCG
4 LCF
organized into seven fire support groups.

3. Enemy Situation

a. Ground: The enemy holds the entire coast in both directions from the BARNSTAPLE BAY area, in considerable strength. Divisions are holding sectors measuring 25 to 35 miles in width. All sectors are topographically similar to the BARNSTAPLE BAY sector, and are fortified on about the same scale. One Panzer division is believed to be now located in the vicinity of TAUNTON, and capable of closing in the BARNSTAPLE BAY area within 24 hours. Another Panzer division can be considered to be within 48 hours of the beachhead area.

b. Air: The hostile Air Force is believed to have an available strength in SOUTHERN ENGLAND of not over 300 single engine fighter aircraft and 300 medium or light, (level or dive), bomber aircraft. Airdromes are as indicated on Maps "Ordnance Survey of Great Britain - AIR - (¼" = 4 mi) plus two additional airdromes as shown on Map 1 Appendix 1 to Annex #3.

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4. Extracts from Outline Plan, Task Force U.S. (See Map 2.)

a. Ground: "Force U.S. will seize and establish a beachhead between MORTE POINT and BIDEFORD, both inclusive, see Map 1. Appendix 1 to Annex #3"

"Seize the ports of APPLEDORE and BARNSTAPLE"

"Occupy a defensive position (See Map 1 Appendix 1 to Annex #3) to permit our continued use of ports and airfields for the advance from beachhead line".

"For Corps and Division boundaries, initial and final objectives, see Map 2, Appendix 1 to Annex #3"

" XVI Corps will attack on column of divsions, seize beachhead line and prepare to advance to the northeast. 30th Airborne Division, 100th Ranger Regt (less 1 Bn) and 1st Bn 99th Paratroop Regt are attached to 16th Corps during the assault and until beachhead line is organized".

"XVII Corps, with 99th Paratroop Regt (Less 1 Bn) and 3rd Bn 100th Ranger Regt attached, attacks with two divisions abreast, captures CHIVENOR AIRDROME and BARNSTAPLE, seizes beachhead line and protects right flank of the Force".

"XVI Corps holds 11th Div in floating reserve to be committed only on orders from Force Hq Ship".

b. Air: "20th Tactical Air Force supported by the 8th Bomber Command supports the assault by:

(1) Maintaining fighter cover over the transport area, and the approach and debarkation of assault waves on the beaches.

(2) Bombardment and ground attack missions preparatory to the assault with priority as follows:

(a) Airdromes, (within enemy fighter range of beachhead area).

(b) Beach defenses. (See Appendix 2 of Annex # 4, Map 1 "Plan of Supporting Fires)

(3) Bombardment ground attack missions during the aasault with priority as follows:

(a) Movements of reserves.

(b) Communication centers

(c) Close support missions

(d) Rear defense areas (See Appendix 2, to Annex # 4 Map #1 - "Plan of Supporting Fires")

(4) Smoke missions with priority to beach defenses on promontories dominating ABLE and BAKER BEACHES (See Appendix 1 to Annex #8 "Air Force Smoke Plan")

(5) Lift of Paratroop elements before and during the main assault and escort of glider borne elements."

"25 per cent of bombardment and ground attack aviation will be held in reserve for call direct from Task Force Joint Hq. Not over 50 per cent of total bombardment and ground attack aviation will be employed in prearranged missions immediately before and during the assault. Priority in close support pre-arranged missions to XVI Corps, up to 50 per cent of total sorties available".

"Air Support Parties with divisions and with combat teams of assault divisions. Air requests direct from Air Support Parties to Force Hq Ship".

"Arrival of first lift of glider borne elements of 30th Airborne Division will be timed to commence during last 15 minutes of preparatory air and naval bombardment and will be immediately preceded by attack of a large heavy bombardment formation of beach defenses of ABLE and BAKER BEACHES. Three groups of dive (fighter) bombers are reserved for escort and close support of Airborne Lifts".

"Following air units or detachments will cross the beahces with assaulting divisions:

* * * * * * *

Assault Division XVI Corps: 3 Air Support Parties
(3 Off - 15 EM)

2 Light Warning Sets
(2 Off - 24 EM)

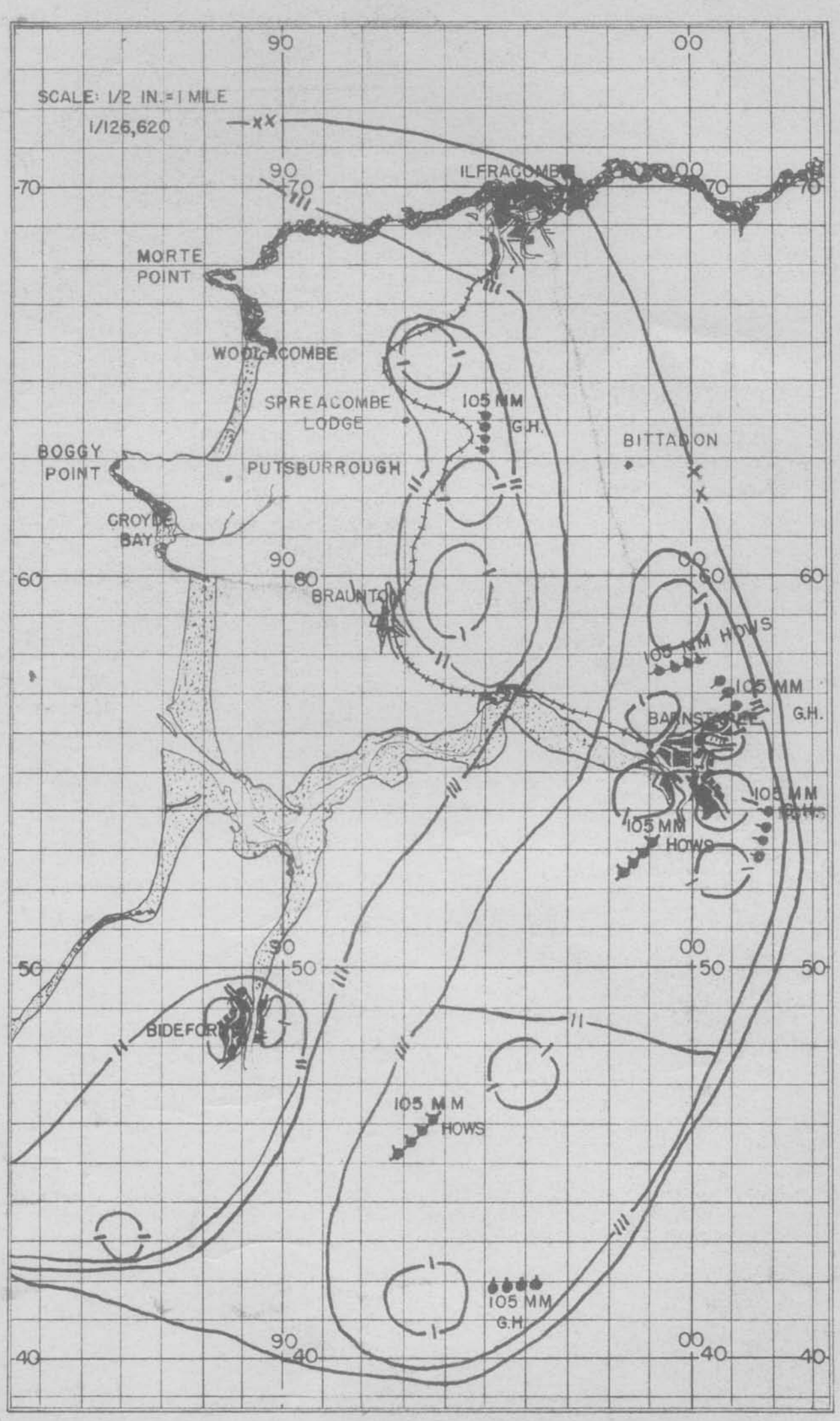
4 Aircraft Warning Observers
(- 4 EM)

1 Weather Observing Section
(1 Off - 4 EM)

"For Bomb lines see Appendix (omitted)

"Tactical Reconnaissance sorties to prearranged points each 15 minutes over zones of action of each assaulting division. Brief radio reports broadcast to Force and Div Hq Ships and to Air Support Parties. Additional requests for reconnaissance to Control on Force Hq Ship".

INTELLIGENCE MAP EXERCISE NO 3 ANNEX NO I



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PLAN
COMMANDING GENERAL 10th DIVISION (REINFORCED)

III Special Situation XVI Corps.

CG XVI Corps assigns the 10th Inf. Div in the assault.

IV Special Situation 10th Inf Div (Reinf)

1. a. Enemy dispositions: See map

Enemy battalion support position vicinity SPREACOMBE LODGE is organized for two companies but believed garrisoned by only one. Two companies regimental reserve in our zone of action. Either may augment garrison in the support position or counter-attack to eject penetrations through the main defensive line.

One Panzer division near EXETER available within 24 hours. An additional Panzer division can be expected within 48 hours.

Two battalions of the Division reserve are located in the vicinity of BARNSTAPLE (See Annex #1)

b. (1) XVII Corps on our right, boundary as shown on Opns Overlay Annex #3 Appendix 1 map #2. IV Corps (British) on our left.

(2) Naval gunfire support by FSGs 1 to 7 inclusive and air support as shown in Annexes 4 and 6.

(3) At H minus one hour and fifteen minutes the 99th Paratroop Regiment (Sep) will be dropped with the mission of attacking at H-15 to seize and hold the high ground in the vicinity of SPREACOMBE LODGE (See Annex #3 Appendix 1 Map #3.

At the same time the 93rd Paratroop Regiment (30 A/B Div) will be dropped with the mission of seizing and holding the high ground west of BITTADON in order to prevent movement and counter-attacks of hostile reserves. Time of attack H-15.

Beginning at H-15 the remainder of the 30th Airborne Division will be landed in the vicinity of BITTADON and occupy a defensive position (see Map # 3 Annex 3 Appendix 1) to prevent movement and counter-attacks by hostile reserves.

2. a. This div:

atchd:

Combat group:

100th Ranger Regiment (-1 Bn)

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901st Tank Bn (M)

901st TD Bn

AA Gp Hq Note: AA Gp Hq and 2 Bns constitute 10th CA (AA)Gp

501 AA Bn AW (SM)

502 AA Bn AW (M)

94th CML Bn (MTZ)

Shore Party group:

Engr Group Hq

584th Engr Bn

585th Engr Bn

586th Engr Bn

81st Sig Co (Sp)

281st Med Bn

174th QM Bn (Serv)

432nd QM Co (gas and oil)

212th Ord Co (Am)

766th QM Co (Rhd)

767th QM Co (Rhd)

MP Co

will embark in ships and craft from Piers 1, 2, 3, and 4 HOMELAND Port of Embarkation on D minus 1 Day and on D-Day force a landing in the Corps sector (see Opns Map #3 Annex #3, Appendix 1), seize and hold the indicated objective. Main effort on the left.

b. Details of boat movement - Annex #6 Appendix 3

c. Lines of departure - Annex #6 Appendix 3

d. D-Day and H-Hour to be announced.
H-Hour is 60 minutes after nautical twilight
D-Day is a day on which high tide is at H plus two hours.

3. a. 28th Inf

Attached: 28th FA Bn

Co A 10th Engr Bn

Co A 94th CML Bn (Mtz)

[redacted]

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[redacted]

Co A 901st Tank Bn

Btry A 501st AA Bn AW

Co A 10th Med Bn

Far Shore Group

28th RCT

Far shore group contingent

	Off.	EM.
2 roadbuilding teams (2 angle dozers)	1	26
1 obstacle removing team (6x6 w#winch & crane) truck mounted		14
1 decontaminating team (angle dozer)		14
1 Signal Sec (1 team - 1 jeep per team)	1	27
1 MP detachment		10
	2	91

Reconnaissance elements
Message center
Naval Beach Party - (Regulate boat traffic and salvage)
Beach Marking Section - (Limits of beach. Roadways)

will seize BAKER BEACH, destroy enemy strong point northwest of PUTSBOROUGH and advance to Regt Int Beachhead Line in its zone of action.

Formation: Bn landing teams in columns.

b. 29th Inf

Attached: 29th FA Bn

Co B 10th Engr Bn

Cos B & C 94th Cml Bn (mtz)

Co B 901st Tank Bn

Co B 10th Med Bn

Btry B 502d AA Bn AW:

29th Far Shore sub-group

29th RCT

Far shore group contingent

	Off.	EM
4 road building teams (4 angle dozers)	4	52
2 obstacle removing teams (2-6x6 w/winch plus 2 crane)		56
2 decontaminating teams (2 angle dozers)		56
2 Signal Sec (2 jeeps)	2	54
2 MP detachments		20
	6	238

[redacted]

Reconnaissance elements
Message center
Naval Beach Party (regulates boat traffic, salvage)
Beach Marking Sec (beach limits - roadways)

will seize ABLE BEACHES GREEN AND YELLOW destroy enemy strongpoint at entrance to WOOLACOMBE corridor, and advance to Regt Int Beachhead line in its zone of action.

Formation: Two Bn landing teams abreast; one in floating reserve.

c. Support Force:

Comdg. Brig Gen _____Asst Div Comdr

Det Hq and Hq Co, 10th Inf Div

Senior Beachmaster with detachment

94th CML Bn (- 4 Cos)

10th Inf Div Arty (-3 Bns)

10th Rcn Tr (less dets)

10th Sig Co (less dets)

901st Tk Bn (less Cos A & B)

901st TD Bn

502nd AA Bn AW

10th CA (AA) Gp

10th Engr Bn (less dets)

will be prepared on two hours notice, on div order, to land any element on any of the beaches as directed; will establish div control of beachhead; to be prepared to employ elements to secure the Div Int Beachhead Line.

d. Reserve:

30th CT:

30th Inf

30th FA Bn

Co C 10th Engr Bn

Btry C 501st AA Bn AW

Co D 94th Cml Bn (Mtz)

Co C 10th Med Bn

in floating reserve will be prepared by H plus 2 hours, to move out from assembly area on div orders, and to land on any of the beaches as directed and attack in the zone of action of either assault landing team.

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e. 10th CA (AA) Gp will provide AA protection in the beach areas.

f. 100th Ranger Regiment (less 1 Bn)

First Bn 100th Ranger Regt will land at H minus 3 hours and seize and destroy the enemy battery and installations in MORTE POINT by H-65. Signal by 3 white parachute flares at H-65 will indicate success. After daylight success will be indicated by displaying a large red panel.

Second Bn 100th Ranger Regt will land at H minus 3 hours and seize and destroy the enemy battery and installations on BAGGY POINT by H-65. Signal by 3 red parachute flares at H-65 will indicate success. After daylight success will be indicated by displaying a large red panel.

g. 20th TAF and 94th Chemical Bn (mtz) dets attached assault CTs execute smoke missions in accordance with smoke plan (Annex #8 Appendix 2)

h. Other units to land on div orders.

x. (1) The prescribed success signals after landing will be promptly transmitted to the next higer unit.

(2) During the approach to the beach every precaution will be taken to eliminate unnecessary noise.

(3) All lights, except those essential for navigation and interior illumination are prohibited. All must be fully screened from observation by hostile forces.

(4) Unless it becomes necessary, in order to accomplish assigned missions, tactical unit commanders will not interfere with the operation or control of the landing craft.

(5) All units will leave liaison parties on the beach to meet and direct the next higher unit to land.

(6) Units of 94th Cml Bn revert to division control on div order.

(7) Landing craft will be prepared to release screening smoke without delay.

(8) Watches to be synchronized at 2300 hours D minus 1 day.

(9) Calls for direct Air Support through Air Support Parties with CTs.

(10) Calls for Naval gunfire through Shore Fire Control Parties with each assault LT.

(11) FA will revert to control of next higher artillery headquarters when that headquarters lands and establishes communication.

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(12) CA AA units will revert to div control when CA (AA) Gp Hq lands.

(13) Shore Engr units will revert to control of next higher headquarters upon its establishment ashore.

(14) Radio silence until H-Hour, to be lifted earlier only on order of div commander.

(15) To lessen danger from our aircraft, front-line units will be prompt in displaying panels to warn friendly planes.

4. a Annex 2 Adm O 2

5. a Annex 7 Sig: Opns

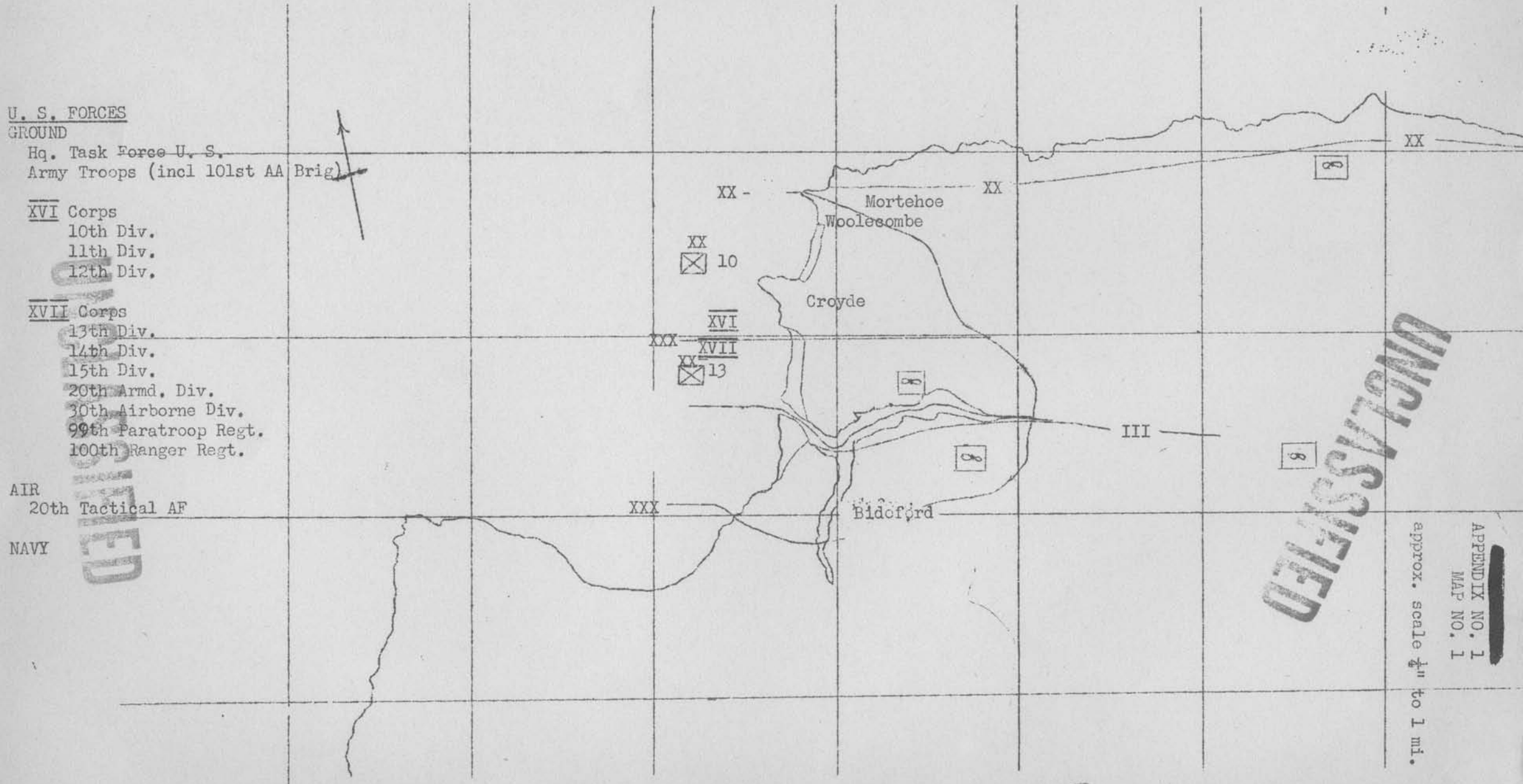
b C.P's:

10th Inf Div	Hq Ship U.S.S._____
28th Inf	LSI_____
29th Inf	LSI _____
30th Inf	LSI _____
Div Arty	Hq Ship U.S.S._____
Engr Gp Hq	Hq Ship U.S.S._____

By command of Maj Gen A

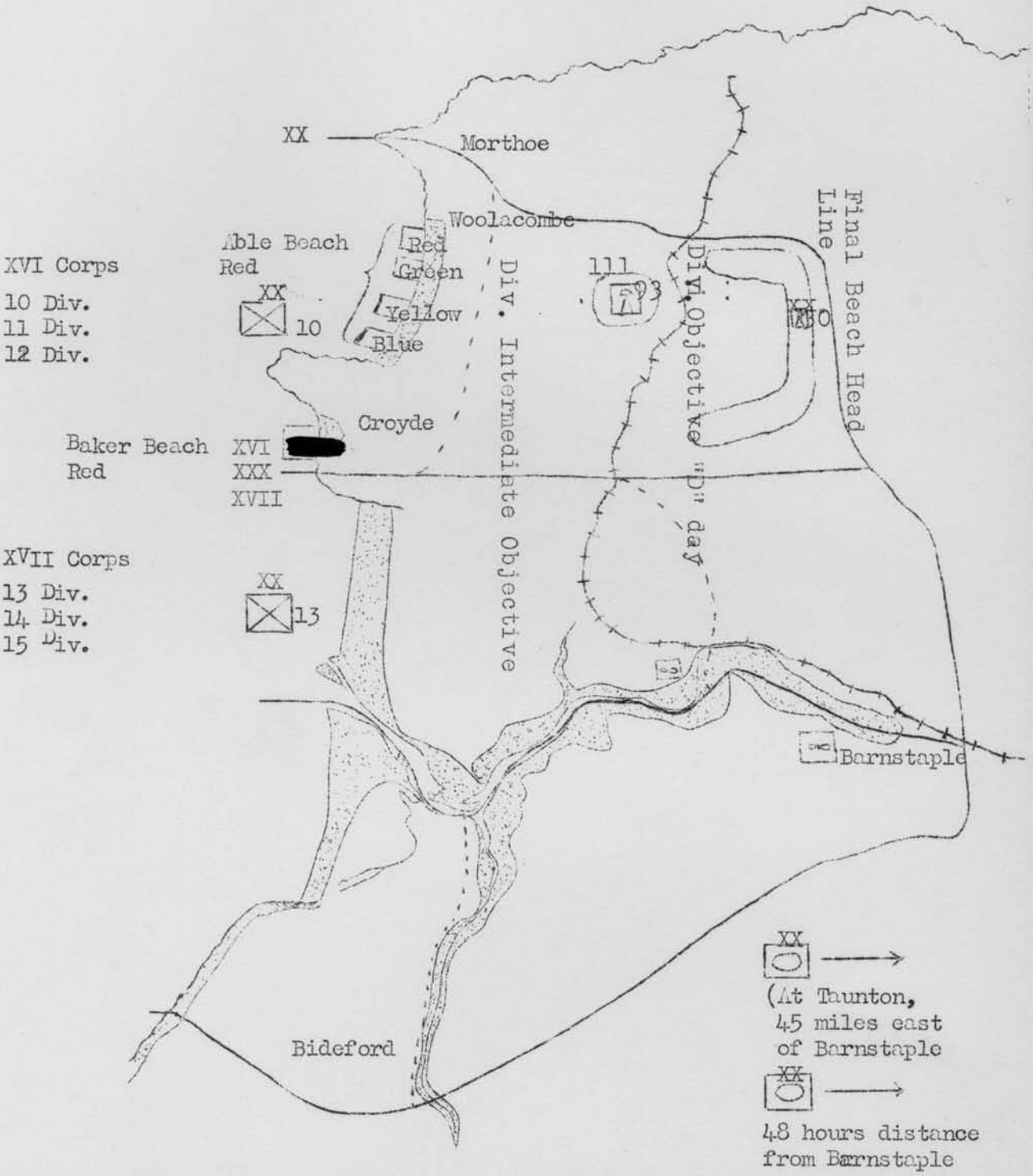
OFFICIAL: C/S
Y
G-3

Annex 1 - Intelligence
2 - Adm Order
3 - Opn
4 - Air Support Plan
5 - Far Shore Group Plan (See Annex #2 Adm Order)
6 - Naval operation
7 - Signal communications
8 - Smoke plan


U. S. FORCES
GROUND
Hq. Task Force U. S.
Army Troops (incl 101st AA Brig)
XVI Corps
10th Div.
11th Div.
12th Div.
XVII Corps
13th Div.
14th Div.
15th Div.
20th Armd. Div.
30th Airborne Div.
99th Paratroop Regt.
100th Ranger Regt.
AIR
20th Tactical AF
NAVY
XX
XX
Mortehoe
Woolacombe
XX
10
Croyde
XVI
XXX
XVII
XX
13
III
XXX
Bidford
XX
APPENDIX NO. 1
MAP NO. 1
approx. scale 4" to 1 mi.

[redacted]

APPENDIX NO. 1
MAP NO. 2



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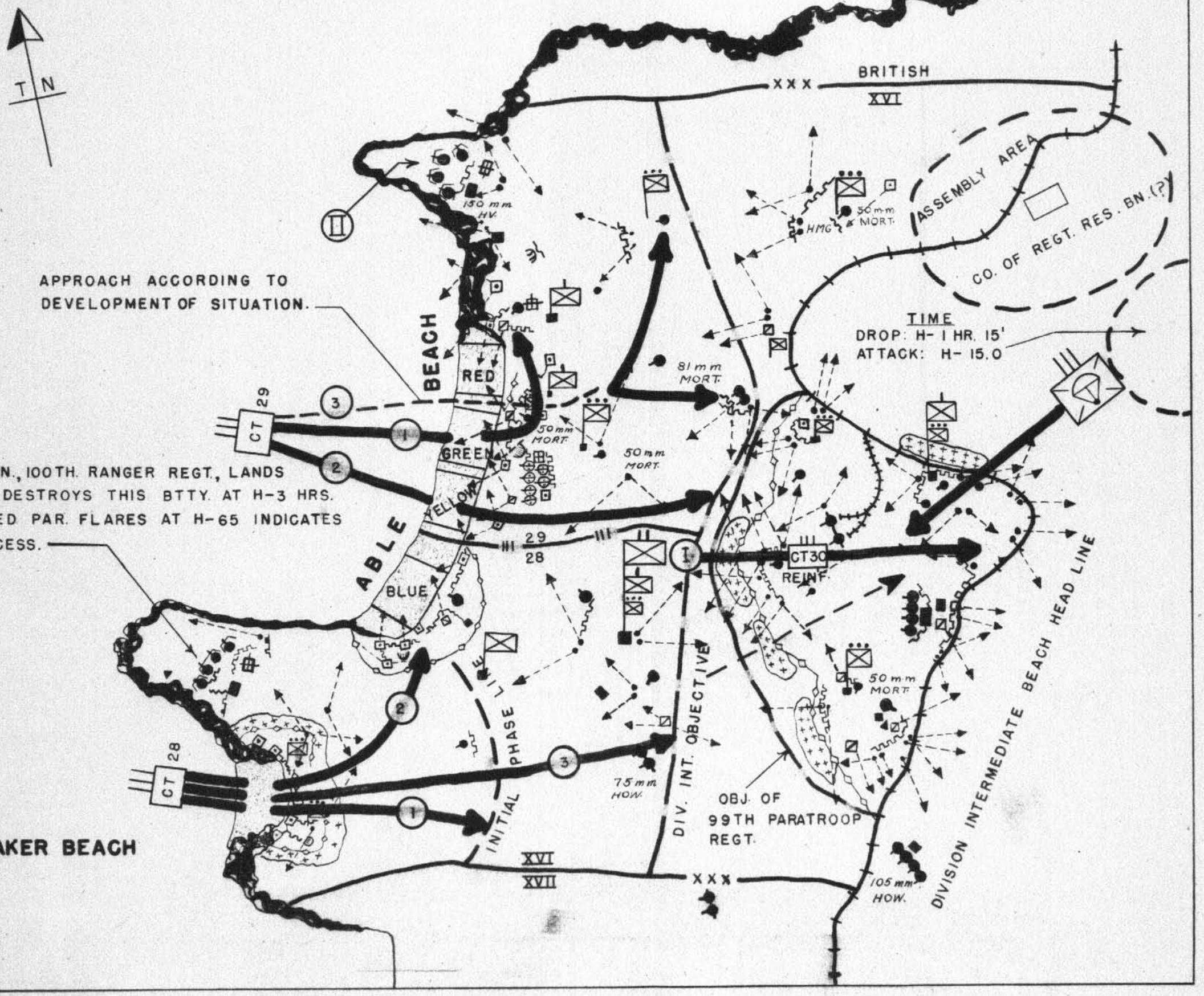
APPENDIX I

MAP III

KEY

(I) DIV. RES. LANDED ON CALL OVER BEACH TO BE SELECTED.

(II) IST. BN. 100TH. RANGER REGT. LANDS H-3 HRS. AND DESTROYS THIS SHORE BTTY. 3 PAR FLARES AT H-65 INDICATE SUCCESS.



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F I E L D O R D E R

F O R

C O M B A T T E A M

Hq _____CT

HOMELAND

_____, 1943

FO 1

Maps: Operations Map

1. a. Annex 1, Intelligence.

   b. (1) 10th Inf Div (reinf) attacks with 29th CT and 28th CT (28th CT on right) to seize beachhead area in MORTE POINT - point south of CROYDE BAY sector. Div will have naval and air support. 30th CT in Div res

   (2) XVII Corps on our right

   (3) IV Corps (British) on our left.

2. a. 29th CT,
   29th Inf
   29th FA Bn
   Co B 10th Engr Bn
   Co B 901st Tk Bn
   Co B 10th Med Bn
   Btry B 502d AA Bn AW
   Cos B and C, 94th Cml Bn (mtz)
   29th Far Shore sub-group

will debark from transports into landing craft during darkness early on D-Day; land at H-Hour, D-Day on ABLE BEACHES GREEN and YELLOW, destroy enemy strong point at entrance to WOOLACOMBE corridor, and advance to Regt Int. Beachhead Line in zone of action.

   b. Embarkation and Debarkation Table, Annex (omitted)

   c. Opns Overlay, Annex (omitted)

   d. Boat Allotment Table Annex (omitted)

   e. D-Day and H-Hour to be announced.

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3. a. 1st LT:

1st Bn 29th Inf
Btry A 29th FA Bn
1st Plat Co B 10th Engr Bn
1st Plat Btry B 502d AA Bn AW
Co B 94th Cml Bn (mtz)
1st Plat AT Co
1st Plat Cn Co
1st Sect Far Shore Gp

will land at H-Hour D-Day on ABLE BEACH GREEN with co in assault; advance to cover beyond the dune line, change direction to the left, attack at H+40 and destroy enemy strong point at entrance to WOOLACOMBE corridor.

b. 2nd LT

2nd Bn 29th Inf
Btry B 29th FA Bn
2nd Plat Co B 10th Engr Bn
2nd Plat Btry B 502nd AA Bn AW
Co C 94th Cml Bn (mtz)
2nd Plat AT Co
2nd Plat Cannon Co
2nd Sect Far Shore Gp

will land at H-Hour D-Day on ABLE BEACH YELLOW with 2 cos in assault, destroy enemy defenses in immediate front and advance to Regt Int. Beachhead Line (Open Overlay).

c. Regt Hq 29th Inf
29th FA Bn (less Btrys A, B, and C)
Co B 10th Engr Bn (less 1st, 2nd and 3rd Plats)
Btry B 502nd AA Bn AW (less 1st and 2nd Plats)
94th Cml Bn (mtz) (less Cos A, B, and C)
AT Co (less 1st, 2nd and 3rd Plats)
Cn Co (less 1st, 2nd and 3rd Plats)
Serv Co (less Dets)

embarked with Regtl Comd Gp, will be prepared to land on ABLE BEACH on order.

d. Reserve:

3rd Bn 29th Inf
Btry C 29th FA Bn
3rd Plat Co B 29th Engr Bn
3rd Plat AT Co
3rd Plat Cn Co

in floating reserve, will be prepared to land on ABLE BEACH on order.

1. Air Support Party, embarked with Regtl Comd Gp, will land on order CO 29th CT

x. (1) LT Comdrs will effect coordination with boat control officers on respective LSIs.

(2) Success reports will be promptly made after landing.

(3) Contact left to right, all units.

(4) Naval gunfire support through Shore Fire Control Parties with assault landing gps after H+20.

(5) Every effort will be made to secure secrecy and surprise.

(6) No firing in assembly area or during approach to beach except to repel attack.

(7) Atchd units will revert to div control on order.

(8) Watches to be synchronized with official ship's time at 2300 hours, D minus 1 day.

(9) Full use will be made of Cml Cos for close support of assault.

(10) Troops constantly alert to danger of booby traps.

(11) To lessen danger from friendly aircraft, front-line troops will promptly display panels on call.

(12) Air support through Air Support Party at CT CP.

(13) Prompt report to be made if enemy makes use of toxic chemicals.

4. Annex 2, Adm O

5. a. (1) Annex _____, FO _____, 29th Inf Div Signal

(2) Prescribed signals:

Meaning	Voice	Key	Lamp	Pyrotechnic
Distress Signal, boats	Apples	BDR	BDR	Signal, Grd White star parachute, M-17
Landing successful	Cherry	QTK	QTK	Signal, Grd Green Star Parachute, M-19
Lift Naval Gunfire	Quince	Nex	Nex	Signal, Grd Green Star Parachute, M-20
Display front line panels				Signal Aircraft Red Star Parachute, M-11

b. (1) CPs: 29th CT, aboard LSI_____
1st LT " " _____
2nd LT " " _____
3rd LT " " _____

After landing, LTs will leave liaison parties at beach to contact succeeding units.

c. Radio silence until H-Hour unless the movement is positively discovered. Breaking of radio silence earlier than H-Hour only on authority of Div Comdr.

By order of Colonel A

Ex O

OFFICIAL:

Y
S-3

Annexes:
1. Intelligence
2. Adm O
3. Embarkation and Debarkation Table
4. Opns Overlay
5. Boat Lift Amt Table
6. Boat Assignment Table

[redacted]

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ADMINISTRATIVE ORDER # 2. ANNEX # 2

1. Supply.

a. Rations:

(1) Supply points: Dumps initially selected, developed and marked by shore party of each R.C.T. on ABLE BEACH RED and BAKER BEACH.

(2) Dump distribution to begin at H plus 48 hours.

(3) Plan of supply,

(a) Individual reserve - 2 K Rations carried by each man.

(b) Initial reserve - 2 K Rations for entire force landed by H plus 48 hours.

(c) Beach reserve - 4 C Rations for entire force established by H plus 96 hours and maintained at that level until ports are in operation.

b. Ammunition:

(1) Supply points: Initially engineer shore dumps on ABLE BEACH RED and BAKER BEACH.

(2) Plan of supply.

(a) Individual reserve: as prescribed by R.C.T.

(b) Initial reserve: One unit of fire by H plus 24 hours plus one additional unit of fire by H plus 36 hours.

(c) Beach reserve: After H plus 36, ammunition dumps will be built up to 6 units of fire, to be maintained at that level.

c. Gas and Oil.

(1) Distributing points: Shore dumps on ABLE BEACH RED and BAKER BEACH.

(2) Plan of supply:

(a) All vehicles will embark with gasoline tanks 95% full.

(i) All vehicles will carry a reserve as prescribed by R.C.T.

(b) 5,000 gallons regular, 92 octane and 100 octane by H plus 48 hours.

[redacted]

d. Water.

(1) Distributing points. Established by engineer shore units.

(2) All units down to and including squads will be provided with and trained in the use of emergency chlorination material.

(3) Plan of supply:

(a) Individual reserve - All troops will land with one full canteen.

(b) Initial reserve - Each landing craft, landing after H plus 12 hours, will carry five full five-gallon cans plainly marked for content.

(c) Beach reserve 5,000 gallons for each landing force by H plus 48 in addition to initial reserve.

(d) Shore party engineers will develop resources upon landing without delay.

2. Evacuation.

a. Casualties:

(1) Clearing station:

(a) Shore group Med Bn open on beaches by H plus 3 hours.

(b) Division Med Bn open when indicated by tactical situation.

(2) Collecting station.

(a) Shore group Med Bn open on beaches by H plus 2 hours.

(b) Div Coll Co attached to each R.C.T. to open when indicated by tactical situation.

b. Burial.

(1) Burial by organization.

(2) Div Cemetery. To be announced later.

c. Prisoners of War.

(1) Collecting points: ABLE BEACH RED and BAKER BEACH.

(a) Organizations will deliver prisoners of war to shore installations as indicated.

(2) Inclosure: ABLE BEACH YELLOW

(3) Shore units will forward prisoners of war to inclosure to be evacuated to base as soon as practicable.

3. Traffic.

a. Circulation. Held to absolute minimum.

(1) M.S.R. By R.C.T.'s - Division later.

(2) Priorities, By R.C.T. - Division later.

b. Control.

(1) Routes between water's edge and shore dumps to be controlled by shore units.

(2) Routes forward of shore units installations to be controlled initially by R.C.T.'s Div. Control to be effected upon landing of Division headquarters.

c. Construction and maintenace of routes.

(1) Shore party engineers to select, develop, maintain routes from water's edge to shore installations.

(2) Division engineers to select, develop, maintain routes in the area forward of the shore installations.

4. Service troops and trains.

a. Bivouacs. Location of Service troops later (By Division).

5. Personnel.

a. Stragglers.

(1) Straggler line - beach line.

(2) Straggler collecting points: to be established by R.C.T. and reported to Div Hq as soon as possible.

(3) Division M.P. platoon to take over when Division Hq lands.

b. Surplus baggage. To be stored in embarkation area and transported to the far shore when the tactical situation permits.

c. Mail: suspended until further notice.

d. Furloughs and passes: Suspended until further notice.

e. Strength reports: Daily after H plus 2 days as of 2400 to reach Div Hq by 0700.

f. Replacements:

(1) Normal requests with strength reports. Emergency requests by quickest communication available to forward echelon Div Hqs.

g. Civilian population.

(1) Immediately upon occupying a populated village or town, the R.C.T. C.O. will be responsible that civil officials are instructed that all people will be frozen in their homes until further notice; that any civilians found outside their homes will be evacuated as prisoners of war.

6. Miscellaneous.

a. Reports.

(1) S-4 reports will be submitted daily with the strength returns.

FIRE PLAN
Co 901st Tk Bn (less 1 Pl)
in Support of Assault Cos.
1st Bn, 29th Inf.

Tank No.	Initial Target		Second Target		Alternate Target	
	No	Type	No	Type	No	Type
1	6	MG	6	MG	7	MG
2	8	MG	8	MG	6	MG
3	9	AT	7	MG	6/8	MG
4	9	AT	9	AT	8	MG
5	9	AT	9	AT	8	MG
6	2	MG	2	MG	3	MG
7	3	MG	3	MG	2	MG
8	4	AT	5	MG	2/3	MG
9	4	AT	4	AT	3	MG
10	4	AT	4	AT	5	MG

Cos. A & B, Assault Bns

4 Platoons as follows:

1 Rifle Squad - 12 EM

1 section { 1-60mm Mortar Squad; 1-LMG Squad; 1-Sergeant } - - - - - - - - - 11 EM

1 section:

2 Flame throwers - - -	4 EM	
2 Rocket Projectors- -	4 EM	
Pole charges - - - -	2 EM	
Bangalore Torpedos -	2 EM	
Grenades - - - - - - -	2 EM	
N.C.O.'s - - - - - - -	2 EM	
Total	16 EM	16 EM

Total Platoon 39 EM 1-0.

Total Company about 185 EM & 5 officers.

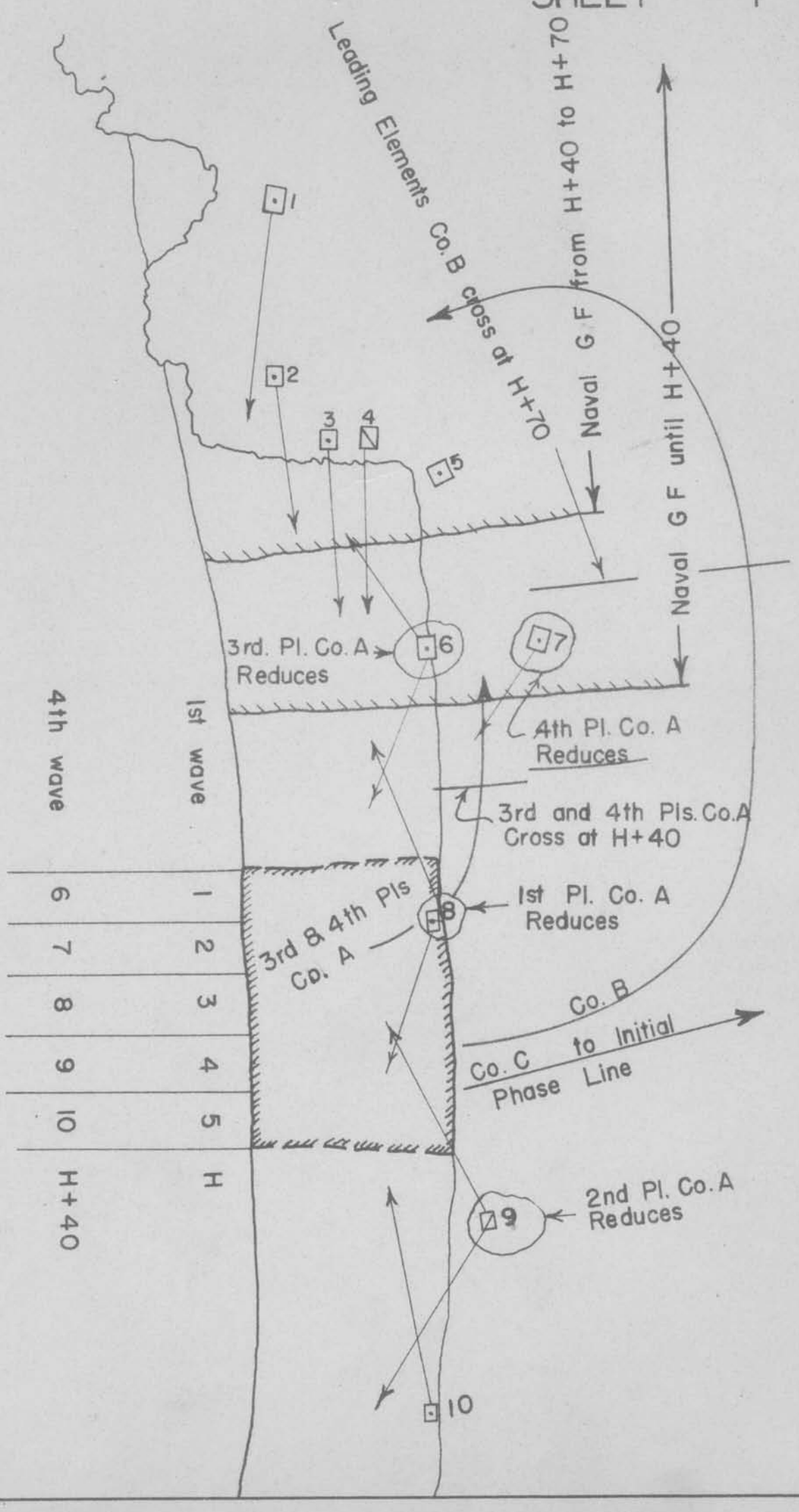
Co. C., Assault Bn - T/O Company.

Co. D., Assault Bn - T/O Company.

Order of Landing

1st Wave	1st & 2d Pls Co A	1 Pl Tks	H
2d "	3d & 4th Pls Co A	1st & 2d Pls Co B	H + 12
3d "	3d & 4th Pls Co B	Shore Elements	H + 18
4th "	1 Pl Tks	Cml. Co (-2 Pls)	H + 60

ANNEX 3
APPENDIX 1
MAP 4
SHEET 1



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Annex #2
Appendix 2

ENGINEER PLAN

[redacted]

1. Organization of landing beach.

a. Typical plan is shown for WOOLACOMBE BEACH - (Similar layout can be adapted to SAUNTON SANDS).

b. Initial Plan : For beach exits shown on Sketch # 1. This work to be performed by two engineer companies (See Engr Plan, Sec III).

c. Final Plan: for beach exits and beach layout shown on sketch #2. This work to be completed by the shore party engineers.

2. Organization of landing area back of beach.

a. Typical plan for WCOLACOMBE AREA shown on sketch #3. (Similar plan will apply to BRAUNTON AREA.)

b. The organization of this area is based upon the following:

(1) Initial reserves for assault regiments to be brought in with reserve battalion and assembled in WOOLACOMBE and BRAUNTON for distribution.

(2) Initial assembly area for reserve battalion of assault regiments WOOLACOMBE and BRAUNTON.

(3) Initial assembly areas in WCOLACOMBE area for three combat teams of the follow up division shown on the sketch 3. (A smilar layout will apply to the BRAUNTON area.) Vehicles and personnel will move out from boats as soon as they land directly to these initial assembly areas where they will be organized and moved out at once to secure their initial objectives. WOOLACOMBE will be used as an intermediate vehicle park for disabled vehicles. Disabled vehicles will be towed off the beach immediately to the intermediate park for repair andcleared to their proper CT areas as soon as possible.

(4) Assuming that the follow up division pushes on to secure final bridge head, ammunition, gas and oil, rations and water, supply points will be established at BRAUNTON and in area about 3000 yards due east of WOOLACOMBE. To be established immediately after follow up division clears the proposed supply areas. Sketch #3 shows these supply points for the WOOLACOMBE area.

3. Engineer Plan

WOOLACOMBE area (similar plan for BRAUNTON area)

a. Clear and mark two 16 yard passages through minefield from water line to beach exit (1 Company) Land immediately following assault infantry (probably H plus 30).

b. Prepare road through lanes cleared and maintain. (1 Company) Land at H plus 90. Will need about 500 yards landing mat, bulldozer and picks and shovels.

c Remove obstacles, repair, and maintain road from beach exits forward. (1 Company). Land at H plus 2 hours. Bulldozers and other road equipment.

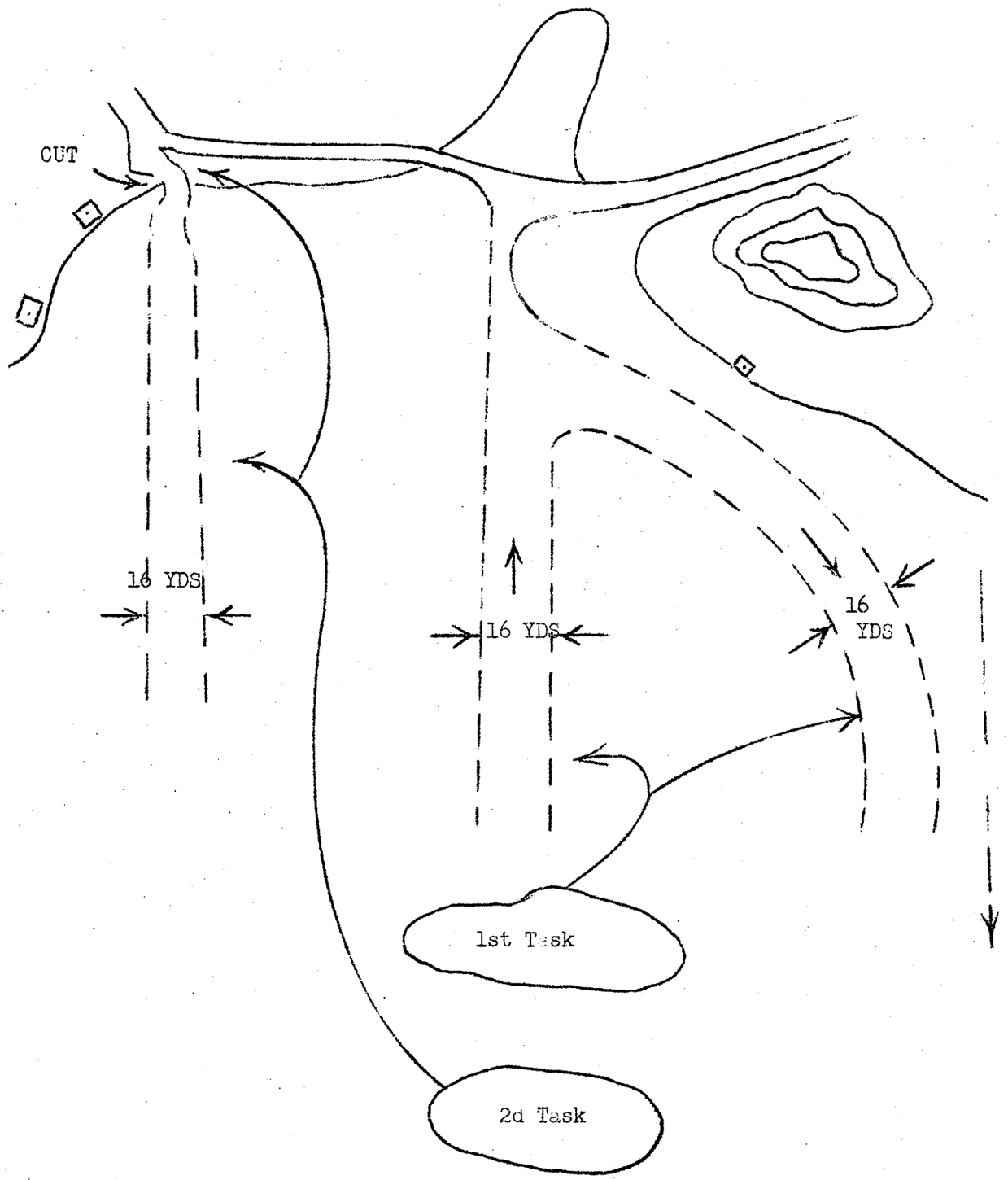
d. Prepare additional vehicle exit road 400 yards north of main exit, (1 company to commence after completing task b.)

e. Upon arrival of Shore Party Engineer, Companies on a., b., and d. turn over tasks and assemble in front of WOOLACOMBE HOTEL for further instructions.

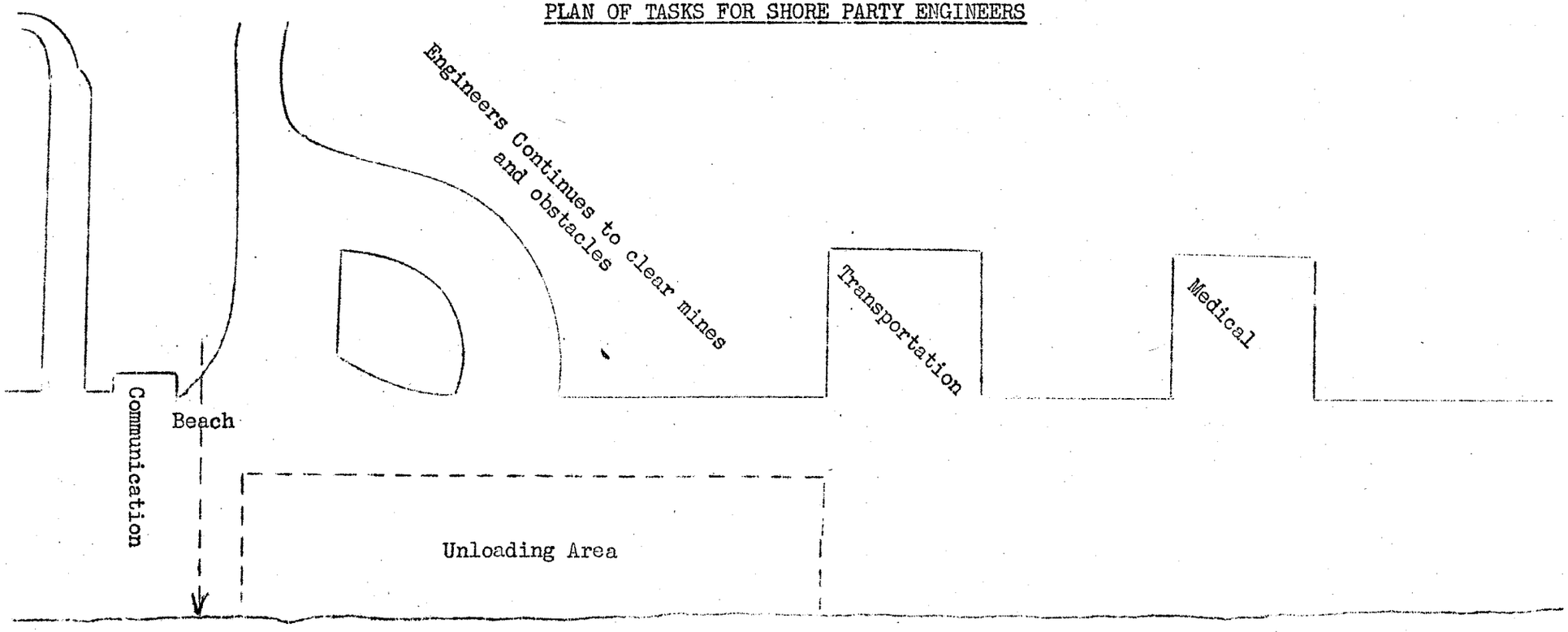
f. Shore Party Engineers to widen gaps in obstacles and clear an area 200 by 1000 yards by D plus 2, and 200 by 2000 yards by D plus 4. Meantime troops landing must be moved at once to initial assembly areas well back from the beach, there they are checked and reorganized to move inland.

SKETCH No. 1

BEACH TASKS FOR ENGINEERS WITH ASSAULT REGIMENT

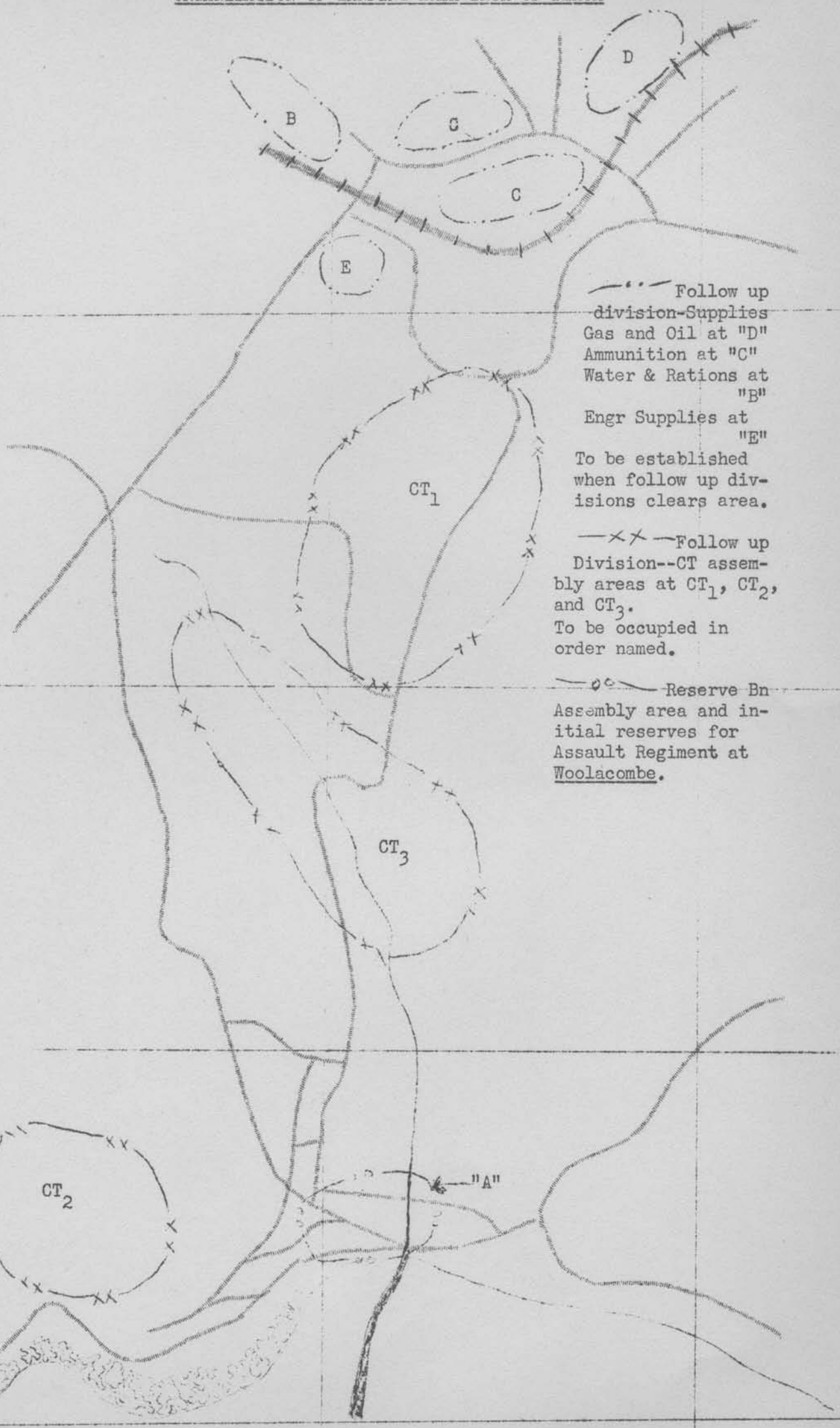


PLAN OF TASKS FOR SHORE PARTY ENGINEERS



SKETCH No. 2

ORGANIZATION OF LANDING AREA BACK OF BEACH



—·—·— Follow up division-Supplies
Gas and Oil at "D"
Ammunition at "C"
Water & Rations at "B"
Engr Supplies at "E"
To be established when follow up divisions clears area.

—×—×— Follow up Division--CT assembly areas at CT_1, CT_2, and CT_3.
To be occupied in order named.

—o—o— Reserve Bn Assembly area and initial reserves for Assault Regiment at Woolacombe.

SKETCH No. 3.

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Annex #4
Appendix 1

THE AIR PLAN

The following are pertinent extracts from the Air Plan 20th Tactical Air Force that affect the operations and plans of the XVI Corps and its Assault Division Commander.

1. Fighter Cover

a. 27 Fighter Groups are now available to the 20th Tactical Air Force. In addition, seven fighter groups will be made available from 8th Fighter Command for escort purposes and to reinforce the fighter cover.

b. Fighter cover will be maintained on D-Day by squadron sorties on patrol over the landing operations, shipping, and area. These sorties are maintained on patrol of 30 minutes each; as follows: The following is a suggested number of sorties for the day upon which plans will be based. It will be changed as the results of the air battle dictate. It is estimated that each squadron can put an average of 12 aircraft over the target area.

PERIOD	AMOUNT OF FIGHTER COVER ON PATROL
H-60 to H-30	3 Squadrons
H-30 to H+30	8 Squadrons
H+30 to H+5 hours	6 Squadrons
H+5 hours to H+10 hours	4 Squadrons
H+10 hours to H+16 hours	2 Squadrons

Note that the figures here shown are based upon a squadron of 25 fighter aircraft making 3 to 4 twelve aircraft sorties during the day.

2. Bombardment and Ground Attack Support for Assault of Task Force U.S.

Narrative: a. During night prior to attack 8th Bomber Command bombed at night the following key communication centers viz: BARNSTAPLE, ILFRACOMBE, BIDEFORD, SOUTH MOLTON. This was a culmination of a four weeks period of strategic bombing during which the following towns were hit: BRISTOL, TAUNTON, EXETER, and PLYMOUTH. Also during this period, attacks by 65th Heavy Bomber Force and by medium Bombers of 20th Tactical Air Force were made on key airdromes affecting the assault or beachhead area.

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b. For the assault, the Supreme Commander allotted 8 heavy Bomb Groups of 8th Bomber Command to support the air attack of 20th TAF on D-Day.

c. As a result of joint conferences by air and ground commanders, the general plan of the weight of air support mission to be allotted in the zone of action of each Corps was determined. The following table indicates the distribution of the weight of attack as it affected the XVI Corps. (See Chart "A" next Page)

3. Before proceeding to Schedules of Air Support Schedules the following Work Sheet is required. This work sheet is based upon the allottment of the 7 Groups shown above the prearranged missions in zone of action of XVI Corps. (The ½ group shown above for smoke, missions is included in Smoke Plan) The 7 Groups available must be distributed over a 4 hour period or from H-30 minutes to H+3½ hours inasmuch as no aircraft can repeat a sortie under four hours. For purpose of distribution, the 7 groups above are shown on the basis of the number of flights at 6 aircraft each they can make available. (See Chart "B" next Page)

[redacted]

A. DISTRIBUTION OF BOMBER AND GROUND ATTACK SUPPORT
(With reference to XVI Corps)

Total Groups available to 20th TAF for Assault	No.of Groups employed on D-day to continue neutralization of airdromes	Other Task Force Missions	Force Reserve	Available for pre-arranged close support missions for Force	Available for air request from force as a whole	Groups available for pre-arranged missions in zone of action of XVI Corps
8 hvy Bomb Gps	-	1	1	6	-	4 Gps
9 med Bomb Gps	3	-	2	2	2	1
4 L Bomb Gps	-	-	1	2½	-	1 Gp for Bombing ½ Gp for Smoke
6 Ftr Bomb Gps (A-36)	-	3 (For escort of Carrier Lift)	1	2	1	1
TOTALS 27 Gps	3	4	5	12½	3	7½

B. MASTER WORK SHEET - AIR SUPPORT IN ZONE OF ACTION XVI CORPS
(No.of 6 aircraft attacks -lst 4 hour period)

	Tactical Air Force				From Bomber Command & from Ftr Bomber Escort of Airborne Lift		
Time Interval (in minutes)	Medium Flights (6 a/c each)	Light Flights (6 a/c each)	(D) Fl (6 a/c each)	Totals	Bomber Command	3 Dive Gps or Airbrn Cmd	Grand Total (6 a/c sorties)
H-30 to H	3	3	4	10	32 (4 atks)	4 (1 atk)	46
H to H+30	1	2	2	5	0	0	5
H+30 to H+90	2	1	2	5	0	0	5
H+90 to H+150	1	1	2	4	0	0	4
H+150 to H+210	1	1	2	4	0	0	4
TOTALS	8	8	12	28	32	4	64

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AIR SUPPORT FOR PREPARATION (H-30 to H)

TIME	FLIGHTS 6 a/c ea	TYPE a/c	BOMBS or AM	APPROX TOTAL BOMBS	OBJECTIVE	MISSION	ALTERNATE OBJECTIVE OR MISSION
H-30	8	B-17	1000#	240 - 1000 # 120 tons	2 and 3 (Woolacombe)	Neutralization communications in WOOLACOMBE.	AA No. L(North Btry) (Change VHF Signal before H-35)
H-30	8	B-17	1000#	240 - 1000# 120 tons	7 and 8	Neutralization of beach defenses.	No. 9 (South Btry) 'Change VHF signal before H-35)
H-30	1	B-25	500#	24 - 500# 6 tons	17	Neutralization of AA Btry	
H-30	8	B-17	1000#	240 - 1000# 120 tons	10 and 11 (Croyde)	Neutralization communications in CROYDE.	No. 1 - on VHF signal by H-25
H-25	1	A-36	500#	12 - 500# 3 tons	30	Neutralization of R Btry.	No. 1 - on VHF signal by H-30
H-25	1	A-36	500#	12 - 500# 3 tons	34	Neutralization of 105 mm Btry.	No. 9 on VHF signal by H-30
H-25	1	B-25	500#	24 - 500# 6 tons	17	Continue neutralization of AA Btry.	
H-20	1	B-25	500#	24 - 500# 6 tons	17	Neturalization of AA Btry.	
H-15	8	B-17	1000#	240 - 1000# 120 tons	2 and 3 (Woolacombe)	Neutralization Diversion for Airborne Lift.	No. 9 - on VHF signal by H-20

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TIME	FLIGHTS 6 a/c ea.	TYPE a/c	BOMBS or AM	APPROX TOTAL BOMBS	OBJECTIVE	MISSION	ALTERNATE OBJECTIVE or MISSION
H-15	4	A-36	Clusters of 6 frag bombs (50 cal MG)	4800# frag machine gun	31,34,35	Protection of glider landing	Targets of opportunity just west of SOUTHERN RY.
H-11	1	A-20	100# and clusters of 6 frag	16 - 100# 5 tons	2, 3, & 4.	Attack north end of ABLE Beach	
H-11	1	A-20	100# and clusters of 6 frag	16 - 100# 5 tons	6, 7, & 8	Attack south end of ABLE Beach	
H-11	1	A-20	100# and clusters of 6 frag	16 - 100# 5 tons	10 & 11	Attack CROYDE Beach	
H-5	1	A-36	100# and clusters of 6 frag	1200 pounds frag plus machine gun	2, 3, & 4	Ground strafe north end of ABLE Beach.	If obscured by smoke attack targets of opportunity between shore and SOUTHERN RY.
H-5	1	A-36	100# and clusters of 6 frag.	1200 pounds frag plus machine gun	10 & 11	Ground strafe south end of ABLE Beach.	If obscured by smoke attack targets of opportunity between shore and SOUTHERN RY.

BOMB LINES from H-30 to H East of Shore line and West of SOUTHERN RAILWAY

[redacted]

AIR SUPPORT
(H to H-3½ hours)

TIME	FLIGHTS 6 a/c ea	TYPE a/c	BOMBS or AM	APPROX TOTAL BOMBS	OBJECTIVE	MISSION	ALTERNATIVE OBJECTIVE or MISSION
H	1	B-25	500# 100#	12 500# Bombs 6 100# Bombs 6 tons	30	Neutralization of Ry Btry	No. 17 - (AA Btry)
H+5	1	A-36	Frag Bombs MG's	1200 pounds frags	31, 34, 35	Neutralization	Targets of opportunity west of SOUTHERN RY.
H+15	1	A-36	Frag Bombs MG'S	1200 pounds frags	28, 27, 26	Neutralization	Targets of opportunity in areas 24 and 22.
H+30	1	A-20	100# bombs	96 - 100# bombs approx 5 tons	Air alert 5 m north of transport area for call direct fr ASP W/29th Inf		If no request by H+50 attack 24 & 22
H+30	1	A-20	100# bombs	96 - 100# bombs approx 5 tons	Air alert 5 mi south of transport area for call direct fr ASP W/28th Inf		If no request by H+50 attack 14 & 15
H+45	1	B-25	500# 100#	12 500# bombs 60 100# bombs 6 tons	21 and 22	Neutralization	31, 34 and 35 if requested by ASP's with AB Div
H+45	1	B-25	500# 100#	12 500# bombs 60 100# bombs 6 tons	Communications Center at CROYDE	Neutralization	17 or 30, as directed by Air Support Conrol.

[redacted]

TIME	FLIGHTS 6 a/c ea	TYPE a/c	BOMBS or AM	APPROX TOTAL BOMBS	OBJECTIVE	MISSION	ALTERNATIVE OBJECTIVE or MISSION
H+60	1	A-20	100# bombs	96 - 100# bombs approx 5 tons	Air alert 5 mi north of transport area for call direct fr ASP W/15th Div		If no request by H+90 attack 26 & 24
H+75	1	A-36	Frag Bombs MG's	1200 pounds frags	14 and 15	Neutralization	Targets of opportunity on or east of route B-3230.
H+90	1	A-36	Frag Bombs MG's	1200 pounds frags	Air alert 5 mi south of transport area for call direct fr ASP W/30th AB Div.		If no request by H+110 attack targets of opportunity east of route B-3230.
H+105	1	A-36	Frag Bombs MG's	1200 pounds frags	21 and 22	Neutralization	Targets of opportunity on or east of route B-3230
H+105	1	A-36	Frag Bombs MG's	1200 pounds frags	14 and 15	Neutralization	27 and 26
H+125	1	B-25	500# 100#	12-500# bombs 60-100# bombs 6 tons	24 and 26	Neutralization	Targets of opportunity on or east of route B-3230
H+125	1	A-20	100# bomb	96 - 100# bombs approx 5 tons	Air alert 5 miles north of Transport area for call direct fr ASP W/10th Div		If no request by H+150 attack targets of opportunity east of B-3230

H+150 to H+210

No planned missions beyond H+150 but following sorties can be made available to XVI Corps during period H+150 to H+210. These sorties are:

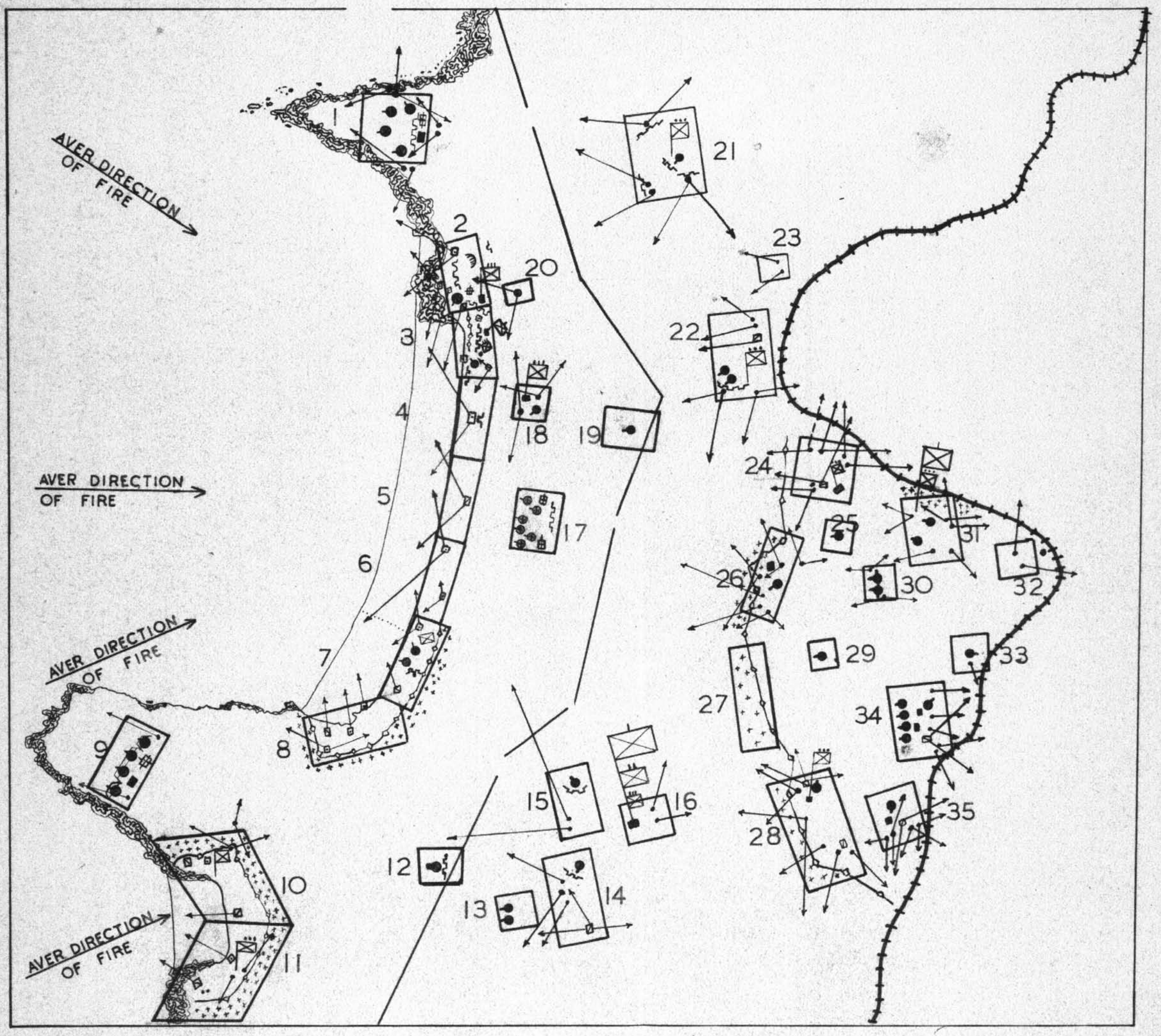
12 - A-36 aircraft
6 A-20 aircraft
6 B-25 aircraft

Corps or Div Comdr must submit to Air Support Control by H+90 the missions desired for these sorties to accord with troops' progress.

NOTE:

1. After H+3½ hours, sorties flown during period H-30 to H become available again to the Air Commander. These will be allotted and planned, or air request missions will be directed to accord with the situation of our own troops and information of the enemy that is known at that time. From this point on, more missions than formerly will be flown as a result of Air Support Requests, from Parties with assaulting divisions. Furthermore, after H+3½ hours the movements of reserves will assume first priority for air attacks.

ANNEX NO 4
APPENDIX NO 2
MAP NO 1



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Annex #5

Far Shore Group Plan is included in Administrative Order #2 Annex #2.

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Annex #6
Appendix 1

GENERAL MISSIONS OF NAVAL TASK GROUPS
FOR LANDING OPERATIONS WITH ARMY

I. Naval task groups will:

1. (a) Provide adequte reconnaissance.

(b) Provide protection against enemy naval forces during the landing operations.

(c) Provide, man, equip and operate the small craft required for the operation and land personnel and material of the landing force, in accordance with the approved plan of the landing.

(d) Support the operation by gunfire, aircraft, and screening operations from boat guns, mine sweeping and removing underwater obstacles.

(e) Provide signal communications between ships and shore.

II. Naval gunfire support for 1 Division front of 4000 to 6000 yards.

Assume: 2BB
2CL
8DD

III. Preliminary Preparations for Naval Gunfire Support

1. Make out work tables based on number of 100 yard squares with density expressed in terms of 75mm per minute.

2. Operations Map showing (From Army):

(a) Landing beaches to be used.

(b) Distribution of troop units for the landing.

(c) Boundaries between units.

(d) Main effort.

(e) Objectives, and times in reference to H-Hour that troops are to capture each objective.

(f) Dotted lines at convenient intervals to show the probable rate of advance of troops from the beaches to the limit of scheduled gunfire support.

(g) Probable average direction of fire from supporting ships.

(h) The zones which are to receive the most intensive fire support, that is, the target areas previously estimated to contain the most dangerous enemy resistance.

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REQUIREMENTS FOR LANDING SHIPS AND CRAFT
FOR LANDING I-DIVISION

Type	Speed	Assault Regiments (2)		Reserve Regiment (1)	Total (Division)
		Assault Bns (4)	Reserve Bns (2)		
APA	15	1			4 APA
AKA	15	1 ?			(1)? AKA
LCVP	10	(30)			120 LCVP
LCM(3)	10	(3)			12 LCMB
LCM(3)	10	(8)?			(8)? LCMB
LCS(3)	16	(2)			8 LCS(3)
LST	11		4	12	20 LST
LCI(L)	15		4	12	20 LCI(L)
LCT(5)	10	5	4	12	40 LCT(5)
LCT(R)	10	1			4 LCR
LCG	10	4			16 LCG
LCF	10	1			4 LCF
LCC	15	1			4 LCC
LCS(L)	11	2			8 LCS(L)

Assault Regiments - 2 - 1 Reserve
Assault Bn -4 - 5 Reserves
Bracketed craft are shipborne

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FIRE SUPPORT GROUPS

No.	Ships	Guns	Batteries	Support
1	1BB	10-14" 8-5"	2) 2)4	Divisions
2	1BB	10 -14" 8-5"	2) 2)4	Divisions
3	1CL	12-6"	2	Divisions
4	1CL	12-6"	2	Divisions
5	4DD	24-5"	8	(Red) ? Beach Forces
6	2DD	12-5"	4	(Blue) ? Beach Forces
7	2DD	12-5"	4	(Green) ? Beach Forces

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Type	Speed	Yds/Min
APA	15	500
AKA	15	500
LCVP	10	333
LCM(3)	10	333
LCS(5)	16	533
LST	11	363
LCI(L)	15	500
LCT(5)	10	333
LCT(R)	10	333
LCG	10	333
LCF	10	333
LCC	15	500
LCS(L)	11	363

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Ship	Guns Broadside	Controls	Ammunition available Rounds	Type	Total rounds per minute	Estimated effect in 75mm per one round	Estimated total effect in 75mm per minute less 10%	Number of 100 yard squares with density 16 75mm per minute	12 75mm per minute
1.BB	10-14"	2	350	HC	15	16.0	216	14	18
	10-14"	2	150	AP	15	6.0	81	5	7
	8-5"	2	2680	AA	48	2.0	86	5	7
								24	32
L. CL	12-6"	2	1300	HC	60	3.7	200	12	17
1.DD	6-5"	2	600	AA HC	42	2.0	76	4	6

Notes: Assume the naval gunfire support for 1 Division front to be: (2.BB (2.CL (8.DD The equivalent total available 75mm density of fire

2-BB	48	64
2-CL	24	34
8-DD	32	48
Total	104	146

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Annex #6
Appendix #2

HQ ETOUSA

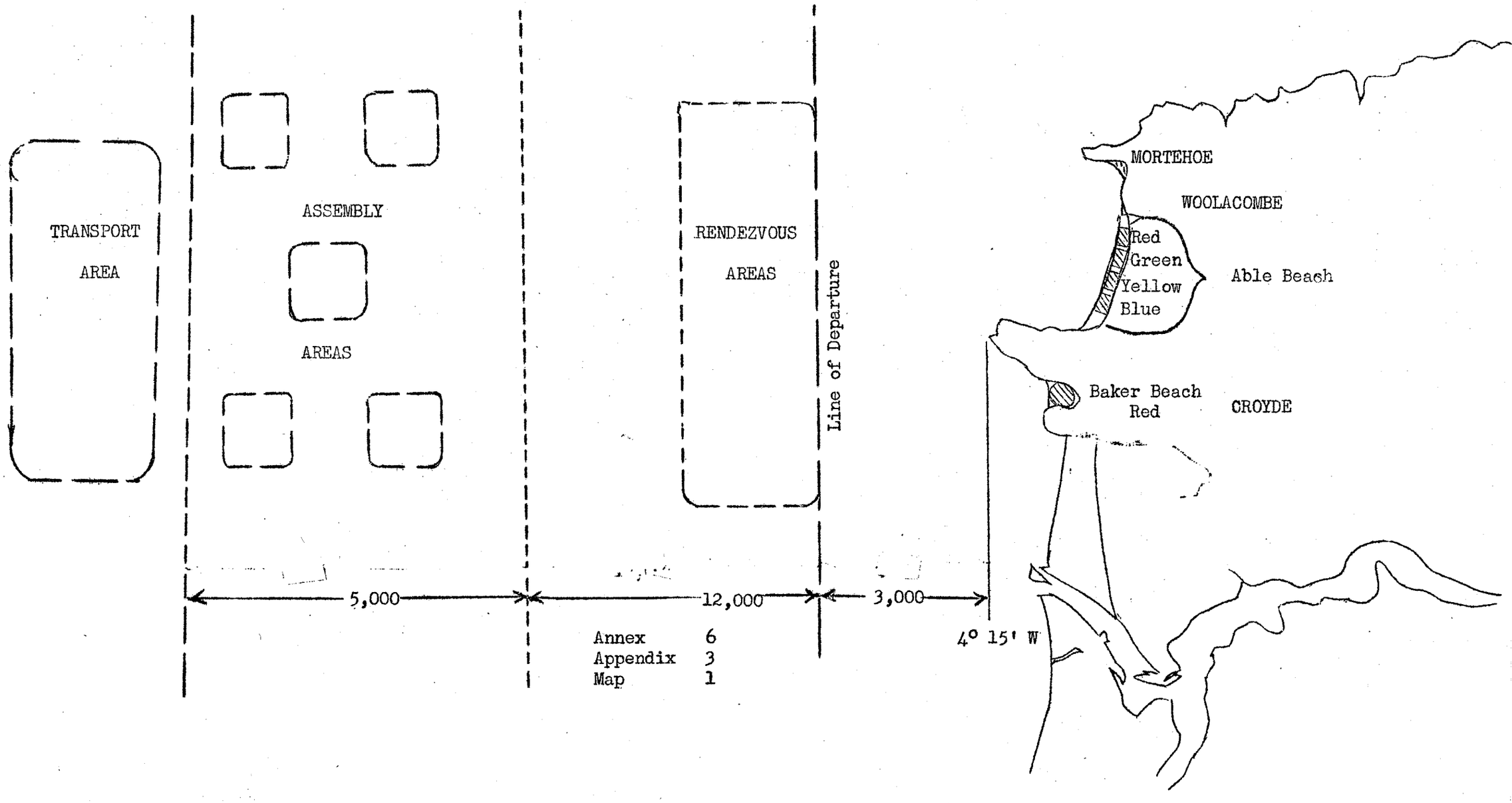
COMMITTEE NO. 3

NAVAL GUNFIRE SUPPORT

Time From	Time To	Target	Rounds	FSG	Ships		Remarks
H-60	H-50	31	30	1	1BB	HC14"	
H-60	H-50	34	30	2	1BB	HC14"	
H-60	H-50	35	30	1	1BB	HC14"	
H-60	H-50	28	30	2	1BB	HC14"	
H-60	H-50	30	40	1-2	2BB	HC14"	(20 rounds each group)
H-60	H-50	17	30	3	1CL	HC6"	
H-60	H-50	1	—	1-2	2BB	HC14"	On signal, assuming failure of rangers, shift from target 30
H-60	H-50	9	—	1-2	2BB	HC14"	On signal, assuming failure of rangers, shift from target 30
H-50	H-40	2	50	3	½CL	HC6"	
H-50	H-40	3	50	3	½CL	HC6"	
H-50	H-40	4	50	4	½CL	HC6"	
H-50	H-40	5	50	4	½CL	HC6"	
H-50	H-40	6	50	2	1BB	20AP) 30HC)	14"
H-50	H-40	7	50	2	1BB	20AP) 30HC)	14"
H-50	H-40	8	50	2	1BB	20AP) 30HC)	14"
H-50	H-40	10	50	1	1BB	20AP) 30HC)	14"
H-50	H-40	11	50	1	1BB	20AP) 30HC)	14"
H-40	H-30	30	40	3	½CL	HC6"	
H-40	H-30	31	40	4	½CL	HC6"	
H-40	H-30	34	40	3	½CL	HC6"	
H-40	H-30	35	40	4	½CL	HC6"	
H-40	H-30	28	40	6	2DD	HC or AA 5"	

Time From	To	Target	Rounds	FSG	Ship	Remarks
H-40	H-30	17	40	7	2DD	HC or AA 5"
H-40	H-30	2	40	2	1BB	10AP) 30HC) 14"
H-40	H-30	3	40	2	1BB	10AP) 30HC) 14"
H-40	H-30	7	40	1	1BB	10AP) 30HC) 14"
H-40	H-30	8	40	1	1BB	10AP) 30HC) 14"
H-30	H-15	4	60	3	1CL	6" HC
H-30	H-15	5	60	4	1CL	6" HC
H-30	H-15	6	60	5	2DD	5" HC
H-30	H-15	17	60	5	2DD	5" HC or AA
H-30	H-15	30	60	1	1BB	5" HC
H-30	H-15	31	60	2	1BB	5" HC
H-30	H-15	34	60	1	1BB	5" HC
H-30	H-15	35	60	2	1BB	5" HC
H-30	H-15	28	60	1	1BB	5" HC
H-15	H-2	4	60	5	4DD	5" HC or AA
H-15	H-2	5	60	5	4DD	5" HC or AA
H-15	H-2	6	60	6	2DD	5" HC or AA
H-15	H-2	17	60	3	1CL	6" HC
H-15	H-2	10	60	4	½CL	6" HC
H-15	H-2	11	60	4	½CL	6" HC
H-15	H±70	2	90	7	2DD	5" HC or AA
H-15	H±40	3	60	7	2DD	5" HC or AA
H-15	H±45	7	60	1	1BB	5" HC
H-15	H±45	8	60	1	1BB	5" HC
H-2	H±30	21	100	3	1CL	HC 6"
H-2	H±30	22	100	4	1CL	HC 6"
H-2	H±30	26	100	5	4DD	HC 5" or AA
H-2	H±30	13	100	5	4DD	HC 5" or AA

Time From	To	Target	Rounds	FSG	Ships	Remarks
H-2	H+30	14	100	6	2DD	HC 5" or AA
H-2	H+30	15	100	7	2DD	HC 5" or AA
Transfer all FSG on call.						
H-5	H-4	2			LCT(R)	
H-5	H-4	3			LCT(R)	
H-5	H-4	10			LCT(R)	
H-5	H-4	11			LCT(R)	



Annex 6
Appendix 3
Map 1

ASSAULT TRAINING CENTER
CONFERENCE

HQ ETOUSA

ANNEX NO. 7 to FO I, SIGNAL

MAPS: Operations Map

1. a. Annex I, Intelligence.

b. (1) 10th Inf Div (reinforced)

atchd:
100th Ranger Regt
901st Tk Bn
901st TD Bn
AA Gp
501st AA Bn AW
502nd AA Bn AW
94th Cml Bn
Shore Party Gp (See par 2a FO No. 1)

2. The signal communication system during the voyage and the successive phases of the assault will be in accordance with SOP and as further indicated in paragraph 3 below.

3. a. (1) Radio personnel of division, regimental, and infantry battalion echelons will operate sets installed in ships in which their respective headquarters are embarked.

(2) Wire communication per SOP as early as tactical developments on land permit.

b. Assault CTs

(1) Prompt Reports as to "successful landings" will be made to next higher units.

c. Div Res:
30th CT

(1) While in floating reserve will listen in on division command net, 28th CT command net, 29th CT command net (see SOI for call signs and frequencies)

(2) Special messenger boat service to be established between elements of division reserve.

d. AA:

AA Btrys attached to CTs will be assigned one radio set from the Infantry Regiment to which attached to work in CT command net. This is in addition to normal AA Bn, radio nets.

X. (1) Message Centers will detail messengers to remain at the beach to meet and direct members of the next higher unit to their respective CPs.

(2) Watches will be synchronized from official ship time at 2300 hours on D minus 1 day. Thereafter, time signal will be flashed over division command net at 1200 each day.

(3) Radio silence is imposed until H-Hour or it is clear that surprise and security is lost. All nets will be manned on listening watch only from H minus 2 hours. Breaking of silence prior to H-Hour only on direction of CG 10th Division.

4. a. Signal supply dump: to be announced when established.

5. See index No. 1 to SO I.

By command of Major General _____

X
C/S

OFFICIAL:

Y

G-3

ASSAULT TRAINING CENTER
CONFERENCE
HQ ETOUSA

Annex #8
Appendix 1

SMOKE PLAN
(AIR)

for Landing Operation, Woolacombe Area.

1. Airplanes (A25) equipped with M-20 smoke tanks, capable of producing a curtain 4000 yards long and with a duration of ten (10) minutes will be used to furnish the initial screen. Three waves of five planes each, with 100% spares to accompany each wave for expected losses, will screen the operation for thirty (30) minutes, from 20 minutes before H-Hour until 10 minutes after H-Hour. Following table indicates the flights and targets of A/C are shown on map over-lay appendix.

AIR SUPPORT FOR SMOKE MISSIONS

Time	No. of A/C	Type of A/C	Load	Objective area	Remarks
H-20	1	A 25	M-20 Smoke Tk	1	Smoke screen
H-20	1			2	" "
H-20	1			3	" "
H-20	1			4	" "
H-20	1			5	" "
H-20	5			Extra	Repl for expected losses
H-10	1			1	Smoke screen
H-10	1			2	" "
H-10	1			3	" "
H-10	1			4	" "
H-10	1			5	" "
H-10	5			Extra	Repl for expected losses

H Hour	1	1	Smoke screen
H Hour	1	2	" "
H Hour	1	3	" "
H Hour	1	4	" "
H Hour	1	5	" "
H Hour	1	Extra	Repl for expected losses

CML BN

Annex #8
Appendix 2

2. a. 94th Cml Weapons Bn will support the landing operation. Co A is attached to 28th RCT on BAKER BEACH; Cos B and C to 29th RCT, Co B to Inf Bn on ABLE BEACH YELLOW and Co C to Inf Bn on ABLE BEACH GREEN; and Co D to be attached to 30th RCT in floating reserve. The targets and areas assigned to each platoon are indicated on the overlay for Smoke Plan. The Cml Troops, using 4.2" mortars will advance in the initial wave, taking up position about 2000 yards off shore, remaining in that position to support their units with smoke or HE until initial beach objective is taken, except as noted in c. below.

b. The airplanes will furnish the initial screen, when the first wave of the landing craft is about 2½ miles off shore, and maintain the initial screen until ten minutes after the landing. The 4.2" mortars of the Cml Units will be used to put up a smoke screen over any area not covered by the airplanes prior to H plus ten minutes, and after H plus ten minutes the Cml Units will maintain a smoke screen over the entire costal area indicated on the map overlay, until the shore line defenses have been overcome by the attacking troops.

c. The Cml Platoons covering the landings on ABLE BEACH and BAKER BEACH will advance in the first wave and place smoke generators on those beaches for local protection during landings and will also use the 4.2" mortars for firing HE on targets as required during the initial landing operations.

d. After the shore line defenses have been overcome, the Cml Units will be landed and will continue to support their units in the advance with smoke or HE as required, all as indicated in the table below.

UNCLASSIFIED

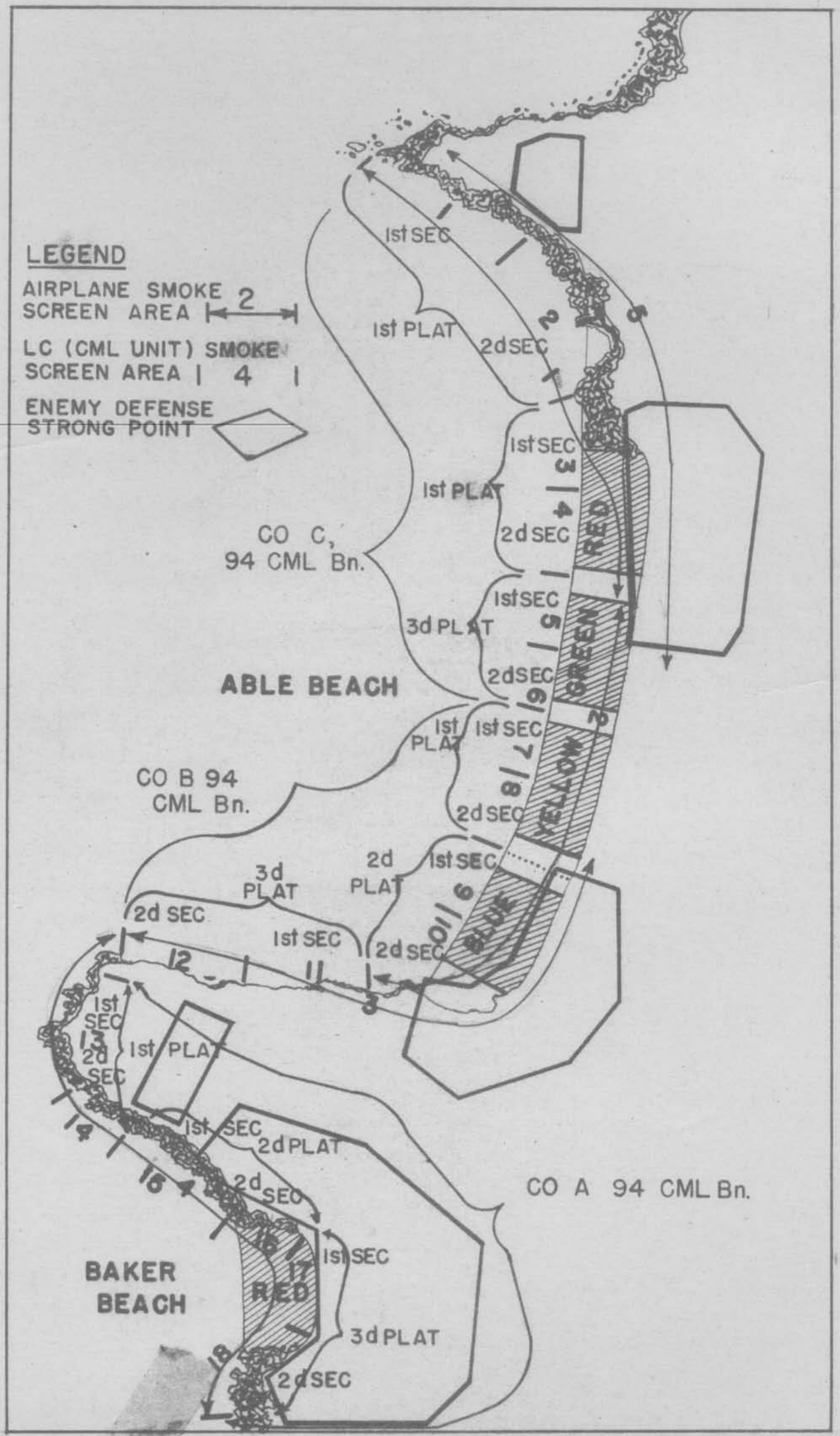
ASSIGNMENTS OF 94TH CML BN.
IN THE SLOT PLAN

Annex #8
Appendix #2

94th Cml Bn			Initial Beach Area Assigned	Unit to Support	Landing on Beach
Co.	Plat.	Sec.			
A	1	1	13	Cos "A" & "B" 28 Inf	Baker
		2	14	Cos "C" & "D" 28 Inf	Baker
	2	1	15	Cos "E" & "F" 28 Inf	Baker
		2	16	Cos "G" & "H" 28 Inf	Baker
	3	1	17	Cos "I" & "K" 28 Inf	Baker
		2	18	Cos "L" & "M" 28 Inf	Baker
B	1	1	7	Co "A" 29 Inf	Able Yellow
		2	8	Co "B" 29 Inf	Able Yellow
	2	1	9	Co "C" 29 Inf	Able Yellow
		2	10	Co "D" 29 Inf	Able Yellow
	3	1	11	Co "E" 29 Inf	on order CO 2d Bn
		2	12	Co "F" 29 Inf	on order Co 2d Bn
C	1	1	1	Co "G" 29 Inf	on order CO 2d Bn
		2	2	Co "H" 29 Inf	on order CO 2d Bn
	2	1	3	Co "I" 29 Inf	Able Green
		2	4	Co "K" 29 Inf	Able Green
	3	1	5	Co "L" 29 Inf	Able Green
		2	6	Co "M" 29 Inf	Able Green
D	1		Floating Reserve	1st Bn 30 Inf	on orders CO 30 RCT
	2			2nd Bn 30 Inf	on orders CO 30 RCT
	3			3rd Bn 30 Inf	on orders CO 30 RCT

UNCLASSIFIED

ANNEX 8
APPENDEX 3
MAP 1



PHASE IV

ADAPTATION OF FM 31-5

HEADQUARTERS
ASSAULT TRAINING CENTER
ETOUSA (PROV)

1 July 1943

FM 31-5. LANDING OPERATIONS ON HOSTILE SHORES

The Conference on Landing Assault Doctrine has reviewed FM 31-5 for the purpose of adapting it to the specific task of a cross-channel operation against the strongly defended shores of northwest Europe. Such changes considered necessary for adaptation of the FM 31-5 to meet this requirement are indicated herein.

CHAPTER 2

ORGANIZATION FOR LANDING OPERATIONS

SECTION II

BEACH AND SHORE PARTIES

46. BEACH PARTY - omit entire paragraph.

47. SHORE PARTY.-a. The shore party group is the task organization of the landing force for the control of administrative activities at the beach. It is commanded by an army officer, who is on the staff of the senior commander on the beach and is known as the shore party commander.

b. The shore party group consists of a headquarters and a naval beach section and may include any or all of the following sections or such additional sections as may be found necessary: medical, supplies, labor, engineer, military police, chemical, communication, and essential air force units. These sections are organized and trained as a shore party group to secure effective operations at the point of landing during and immediately after the assault. They pass to control of higher commands as soon as the situation warrants.

c. The tasks of the shore party group include:

(1) Maintenance of liaison between the senior troop commander ashore and shore party group.

(2) Communication both ship-to-shore and shore-to-shore.

(3) Maintenance of order

(4) Control of stragglers

(5) Direction of traffic and work of prisoners

(6) Selection and marking of routes inland

(7) Assignment of operating, bivouac, parking and storage areas for the services using the beach.

(8) Unloading equipment and supplies from landing craft

(9) Prompt movement of equipment and supplies from shore

(10) Decontamination of gassed areas

(11) Establishment of information and message centers

(12) Making recommendations as to landing of vehicles and supplies, and the establishment of a supply system

(13) Evacuation of casualties and prisoners of war to the landing craft.

(14) Coordinating and effecting movement of air force supplies and personnel to correct location by Air Force Shore Detachments.

(15) Maintaining warning watch for enemy aircraft by Aircraft Warning Units.

d. The naval beach section is composed of naval personnel who have been assigned and trained with the shore party group. This section is commanded by a naval officer, who is subordinate to the shore party group or shore party commander. The size of the naval beach section depends on the tactical mission assigned to the assault division; it normally consists of boat salvage and repair, engineer, labor and communications personnel.

(1) The tasks of the naval beach personnel are: reconnaissance of the beach; selection and marking of landing places; marking of hazards to navigation; boat traffic control; aiding retraction of landing craft; emergency boat repairs and salvage; construction of landing facilities and naval communications. In addition to the above, the naval beach section is charged with the prompt despatch of landing craft after unloading.

(C 1, 1 July 1943)

48. LANDING.-a. Depending on the tactical situation and the decision of the army unit commander, the shore party group commander with a small nucleus of the shore parties, lands in one of the leading waves. Shore parties are not landed until required, as the bulk of the working details will not be needed

until large quantities of supplies begin to arrive.

b. The naval beach section personnel may be used to assist boat crews during the movement from ship-to-shore-or-shore-to-shore, likewise the army personnel of the shore party group may be used to assist the boat crews in any way during the movement to the shore.

(C 1, 1 July 1943)

49. INITIAL EVACUATION SERVICE.-a. The shore party is responsible for the evacuation of casualties from the shore to landing craft on the beach. The naval task force is responsible for the evacuation to hospital ships, transports, or the near shore. Medical personnel or ambulance boats are furnished by the navy or as directed in the administrative plan.

b. The beachmaster should have the ambulance boats assembled where they will be less exposed to fire and can be called to the evacuation landing as required.

c. For details of medical services afloat and ashore, see Section VII, Chapter 10.

(C 1, 1 July 1943)

50. PERSONNEL.-a. The shore party group, including naval beach sections, should be organized and made available to the unit organization of the army force which will make the assault landing. Shore party groups are usually attached to a division and may be sub-divided into as many shore parties as required.

b. The number and composition of shore parties is dependent on the size of the landing force and the number of beaches utilized. Labor details in particular will vary with the amount and type of equipment and supplies landed at each beach. In general, one shore party is organized from the shore party group and embarked on the same transport with each assault battalion combat team, or with the landing craft division in a shore to shore movement making up a battalion combat team. If a particular operation does not require all of the shore parties so constituted, the personnel not needed initially may be held in reserve, or used to reinforce the parties on the more important beaches. In the same manner, when beaches are abandoned, shore party personnel thereat are moved promptly to reinforce the parties on beaches to be kept in operation.

(C 1, 1 July 1943)

51. COOPERATION - omit entire paragraph.

(C 1, 1 July 1943)

CHAPTER 3

LANDING BOATS

SECTION I

GENERAL

60. SIZE

xxxx

d. Omit

64. RESERVES. - Boats with large capacity are preferred for transporting reserve battalions which are landed under the protection of other troops. Where it is necessary to land reserve battalions in the second trip of the boats, the movement can be expedited by embarking the reserves on destroyers or other small craft which are moved as close to the beach as safety permits.

(C1, 1 July 1943)

65. - LIGHTERS AND BARGES. - a. Landing of heavy artillery, tanks, vehicles and heavy material is made from standard landing craft with comparatively shallow draft.

b. Water barges may be required for delivery of water in bulk to the beach during the later phase of landing.

(C 1, 1 July 1943)

SECTION II

STANDARD ARMY AND NAVY BOATS

66. GENERAL. Landing craft of various sizes and characteristics specially designed for assault operations, suitable for landing personnel, supplies, vehicles, artillery and equipment, are available. U.S. Fleet Publication, FTP 207 and 211 give the characteristics of these various craft.

(C 1, 1 July 1943)

CHAPTER 4.

SHIP-TO-SHORE MOVEMENT

SECTION I

GENERAL

74. SCOPE.

* * * * * * * *

c. Planning and execution of the movement of those units which operate shore to shore, as distinguished from shore-to-shore are to be additionally considered. The methods and general principles are not to be radically altered.

(C 1, 1 July 1943)

75. SHIP-TO-SHORE MOVEMENT VITAL PART OF ATTACK.

* * * * * * * *

(added)

e. The U.S. Fleet Training Publication No. 211 "Ship-to-Shore-Movement" should be consulted as a supplement to this chapter. Familiarity with naval methods and system, including hydrographic and beach markings, is essential for the operation of such a movement.

(C 1, 1 July 1943*

SECTION VII

EXECUTION

112. PREPARATION FOR DEBARKATION. - a. Most landing ships are provided with arrangements such as a gantry for loading the landing craft at the rail and then lowering the craft into the water already loaded. When such mechanical arrangements are not provided, cargo nets are hung over the side of the transport and are used as gangways for debarkation of personnel to the landing craft which are placed alongside the transport. The nets should be sufficiently large to permit four or more men to debark abreast and should reach from the deck to the water line (see fig.11).

* * * * * * * *

(C 1, 1 July 1943)

114. DEBARKATION OF ANIMALS. No application to the movement being considered.

(C 1, 1 July 1943)

CHAPTER 5

OPERATIONS ON SHORE

SECTION II

GENERAL

121. TACTICAL UNITY. - It is imperative that the integrity of tactical units even down to the squad be preserved in the landing. This does not preclude the reorganization of tactical units into assault teams at the time of the designation of an assault force. The new units so formed should be organized prior to or immediately after basic amphibious training, and should maintain their identity throughout the entire specialized assault training for the actual operation, and through the ~~entire~~ assault phase of the operation itself.

* * * *

(C 1, 1 July 1943)

122. NAVAL GUNFIRE, AIR, AND BOAT GUN SUPPORT.

* * * *

d. (added) Consideration should be given to the use of mobile artillery in landing craft to fire on area targets during the approach to the beach.

(C 1, 1 July 1943)

SECTION II

RECONNAISSANCE PATROLS PRIOR TO AND DURING LANDING PHASE

126. GENERAL CONDUCT OF PATROLS
Note change 1, 23 January 1942.

127, 128, 129, 130 and 131.

NOTE.- These paragraphs are useful for information as to landing operations in general, but do not have particular application to the contemplated operation.

(C 1, 1 July, 1943)

SECTION III

BEACHHEAD

139. ESTABLISHING BEACHHEAD. - In a landing operation, troops must clear the beach rapidly. This will apply even though the beach position is heavily fortified or has all types of obstacles.

* * * *

(C 1, 1 July 1943)

140. ADVANCE FROM BEACHHEAD.

* * * *

During this phase, liaison between aviation and ground troops is essential.

(C 1, 1 July 1943)

SECTION IV

SCHEME OF MANEUVER

141. GENERAL.-

* * * * * * * * *

e. (added) Appropriate force of airborne troops to be determined according to the type objective and opposition to be expected.

(C 1, 1 July 1943)

142. FRONTAGE OF ATTACK. -

* * * * * * * * *

b.....to take care of this increased front. Sufficient reserves must be kept on hand to insure the exploitation of successes and to continue the attack to the final objective. Airborne troops may be utilized in taking the final objective.

* * * * * * * * *

c.

* * * * * * * * *

(added) The air Force participation in the assault contemplates an attack on a relative wide front, and should not be confined to a specific beach or beaches. The Air Force must be operated under centralized control to insure maximum flexibility and proper air attacks.

(C 1, 1 July 1943)

143. INFLUENCE OF LANDING BOATS. - The speed with which troops can be put ashore depends upon the number and type of craft available and the distance to the transport or the near shore (in a shore to shore operation) from the various beaches. The scheme of maneuver therefore must take these factors into consideration. The beach gradient may also affect the utilization of various types of craft.

* * * * * * * *

(C 1, 1 July 1943)

SECTION IV

SCHEME OF MANEUVER

144. HOSTILE DISPOSITIONS.

* * * * * * *

(added) Special assault units must be organized and trained to land against strongly fortified beaches.

(C 1, 1 July 1943)

145. LANDING BY ECHELON.

* * * * * * *

In addition, heavy counter-battery fire and combat aviation should be employed to neutralize the enemy batteries.

(C 1, 1 July 1943)

SECTION V

WITHDRAWAL AND REEMBARKATION

* * * * * *

149. WEATHER CONDITIONS

* * * * * * *

Through their meterological service, the Navy and Air Force will furnish the Army with weather predictions. The utmost effort will be made by the Navy to take advantage of favorable weather conditions during the reembarkation.

(C 1, 1 July 1943)

CHAPTER 6

NAVAL GUNFIRE

SECTION II

CHARACTERISTICS

158. GENERAL.

* * * * * * *

b. * * * *

Naval. It is essential however that naval gunnery officers ashore and afloat, and the landing troops have the same maps, bearing the same military grid and prepared concentrations.

c. When the naval antiaircraft guns are not required against enemy air operations, their use with a high capacity shell and a time fuse, adjusted for air bursts affords a powerful anti-personnel weapon.

d. * * * *

(C 1, 1 July 1943)

* * * * * * *

160. MUZZLE VELOCITY AND TRAJECTORY

* * * * (added). However, the use of accurately adjusted time fire, by virtue of its fragmentation effect, is effective against personnel in defilade, despite the high velocity and flat trajectory.

(C 1, 1 July 1943)

162. TYPES OF PROJECTILES AND FUZES

* * * * (added). New developments with a high capacity ammunition, a new technique of obtaining air bursts with antiaircraft shells and new methods of fire control, render more effective than in the past for the support of landing operations.

(C1, 1 July 1943)

SECTION III

REQUIREMENTS IN GUNS AND AMMUNITION

170. FIRE SUPPORT GROUPS. Naval gunfire support will be expected to be provided by regular combatant ships (BB, CA, CI, DD), on the basis of several ships in general support and at least one ship in support of each assault battalion.

SECTION IV (C 1, 1 July 1943)

COORDINATION OF FIRE

172. COOPERATION BETWEEN ARMY AND NAVY

* * * * * * *

c. (Added) The effectiveness of naval gunfire depends to a very high degree on the competency of the personnel who control it. To obtain maximum effectiveness in a landing operation, there should be a trained shore fire control party, experienced in operating with troops, and on each firing ship there should be an army artillery officer who has had some training and experience in naval gunfire and who can translate the requirements of the troops into terms of naval gunfire.

(C 1, 1 July 1943)

CHAPTER 7

AVIATION

SECTION I

GENERAL

176. ADVANCE AIR BASES.-

* * * * * *

b. The seizure of an advance air base for air operations is in some situations the function of the Navy, but in others, it constitutes a separate landing operation for which the necessary landing force is provided by the Army.

c. Airborne and air transported troops may be used for the seizure of an advance air base within operating radius of friendly flying fields. Consideration should be given to dispatch of such troops from carriers when operations from land-based fields are impracticable due to distance. For operations of this character see FM 100-5.

(C 1, 1 July 1943)

177. AIR SUPERIORITY. - a.

* * * * * *

Troop transports and troops in small boats offer concentrated targets for hostile aircraft and are extremely vulnerable to cannon and machine gun strafing, bombing and gas attacks. Even a small opposing air force skillfully handled and not effectively neutralized may disrupt the landing and force a withdrawal. It is therefore essential that the bulk of hostile combat aviation capable of intervening during the landing operations be destroyed or neutralized prior to the approach of the transports and supporting naval units within the transport area. Subsequently, fighter aviation must be prepared to furnish protection against air attacks during the critical landing phase.

b. * * * * * *

(C 1, 1 July 1943)

179. COMPOSITION OF AIR FORCE.-

* * * * * *

In any situation however, the air force should be composed of the classes of aviation which can best accomplish the following missions:

First, gain and maintain local air superiority.

Second, preliminary bombardment.

Third, closely support the landing force and convoy.

Fourth, furnish necessary reconnaissance and observation, including photographic missions.

Fifth, lift and support airborne troops.

(C 1, 1 July 1943)

SECTION II

AIR OPERATIONS PRELIMINARY TO LANDING

183. PHOTOGRAPHY.-a. Air photographs and mosaics, carefully studied, are of assistance in drawing up final plans for the operation.

b.

* * * * * *

(C 1, 1 July 1943)

SECTION III

AIR OPERATIONS DURING DEBARKATION

* * * * * *

185. PROTECTION OF TRANSPORT AREA. * * * *

b. Submarines and surface vessels are an additional menace during debarkation. Aircraft equipped with bombs and cannon may reduce this hazard. Battleship and cruiser aircraft not required for gunnery observation are also employed to establish an air patrol.

c. **

**

** It is extremely difficult to provide proper air support for a night landing in the presence of an alert hostile air force because the transport area may be illuminated by flares and effectively bombed by the defenders.

(C 1, 1 July 1943)

SECTION IV

AIR OPERATIONS DURING APPROACH TO BEACH

190. GUIDE AIRPLANES.-a. Under exceptional circumstances, and when unopposed by hostile aircraft, guide airplanes may be used.

b.

* * * * * *

(C 1, 1 July 1943)

191. SUPPORT WHEN SHIP GUNFIRE LIFTS.-

* * *
* *
* * *
* *
* * *
* *

The time schedule for its operations is prepared jointly by the air force and landing force commanders and must be coordinated with the naval forces.

(C 1, 1 July 1943)

SECTION V

AIR OPERATIONS DURING ADVANCE INLAND

194. SUPPORT AFTER LANDING OF FIELD ARTILLERY.-

* * * * * *

b. * * * * * *

(5) Transport and other suitable aircraft are utilized to carry airborne or other transported troops to operate against selected objectives.

(C 1, 1 July 1943)

SECTION VI (added)

GROUND REQUIREMENTS TO FACILITATE AIR OPERATIONS

194-1/5. GENERAL. Seizure of airdromes at the earliest possible moment is essential. Normally it can be delayed for as long as noon D+1 and then only:

a. If hostile air threat is negligible, and/or

b. If land bases within efficient operating range are available to friendly fighters.

194-2/5. CONTROL.-a. A nucleus of an air control center will be established in the assault phase for the purpose of fighter control in order to relieve congestion on the Headquarters and fighter control ships and to provide for the eventuality of these ships being disabled.

b. The function of advance airfield signal units will include the establishment of airdrome control facilities, homing facilities and a link between advance airfields and Air Force Headquarters afloat and ashore.

194-3/5. DEFENSE.-a. Early in the assault it is essential to bring in certain aircraft warning units. These consist of RDF, ground observers, and other reporting agencies. Early consideration must be given to the landing of ground control interception equipment and personnel. These units will eventually be incorporated into the operational control organization.

b. Prior planning and early command decisions are required in connection with the ground defense of airdromes:

(1) In the planning phase of an operation utmost consideration should be given to the employment of air based security battalions for the protection of airfields in order to obviate the necessary diversion of troops from combat units.

(2) The policy as to command responsibilities for defense of an airfield is not yet clearly defined - this responsibility must be definitely prescribed prior to actual operations and is especially important in the case of reinforcements temporarily brought in to assist in defense of an airfield.

(3) Protection of the seized airfield from air attack evolves primarily on antiaircraft artillery. Air based security battalions have no organic antiaircraft artillery, therefore, these weapons must be otherwise provided.

c. When the beach area is beyond range of light artillery and assumes static condition, the employment of barrage balloons should be considered to assist in its defense.

194-4/5. SERVICE.-a. Aviation engineer battalions, and/or airborne aviation engineer battalion units closely follow the assault troops and are responsible for making captured airfields available for early use.

b. Advance servicing units are prepared to organize the captured airdrome as a service station and to receive the gasoline, oil and ammunition delivered to the airdrome. They quickly follow the assault forces and while it is not contemplated that they will join in the assault they must be equipped to take care of themselves particularly in the face of a determined counter-attack. These units should be promptly relieved in order that they may initiate the organizing of new airfields.

(C 1, 1 July 1943)

CHAPTER 8

SIGNAL COMMUNICATION

SECTION I

GENERAL

195. GENERAL

* * * * * * *

b. Each embarked military unit should operate its normal Message Center. Nearly all traffic, both incoming and outgoing, will pass through the ship's communication center, which is operated by Navy personnel. Close liaison must be maintained between these activities. The troop message center will provide the necessary message service between the two agencies.

* * * * * * *

d. The Navy is responsible for ship-to-ship, ship-to-craft, and craft-to-craft communications and generally ship and craft-to-shore. The exception is that radio sets of Command Posts or Rear Echelons still afloat will be manned by military operators.

e. A non-combatant ship must be planned, equipped and furnished with a well trained complement for use as a Headquarters ship.

* * * * * * *

(C 1, 1 July 1943)

196. JOINT PLANS - a. Signal communication plans provide for

(1) The additional personnel such as radio operators and visual signalmen required for transports; control vessels; boat groups, boat divisions, and wave commanders; the beachmaster; fire-control parties and air support parties.

* * * * * * *

(C 1, 1 July 1943)

198. SIGNAL PLANS - Prior to embarkation the following signal plans and orders must be prepared to include the following items which will be in the sequence -

a. Information:

(1) Such information of enemy communications and radars as may be essential from the point of view of joint operations.

(2) Such information of friendly communication and radar facilities as may be necessary for the coordinated action of the joint services in joint operations.

(3) Such information of the communication and radar systems of the participating services as may be necessary for the understanding by each service of the capabilities and limitations of the communication and radar systems of the other services.

(4) Such information of the aircraft warning service communication system as is necessary to insure the prompt reception and distribution of the information of approach of hostile and friendly aircraft.

(5) Such information regarding air support (Naval and/or Military) as may be necessary to insure that requests for air support will be expeditiously handled.

(6) Such information pertaining to the Command, "Set-up" (that is, location of the headquarters or command) posts of all services as may be necessary for the effective installation and operation of the communication and radar systems.

b. Time:

(1) Designation of the time systems to be used for communication purposes and in heading and text of messages.

c. Precedence (priorities):

(1) Establishment of various degrees of precedence (priority), and appropriate methods of indicating them.

d. Radio:

(1) General radio instructions, as necessary, including radio silence restrictions, etc.

(2) Call signs and frequencies, to include such instructions to cover assignment and distribution of radio call signs and frequencies as may be necessary to:

(a) Insure coordinated action and avoid interference between the services.

(b) Provide a guide for all services in distributing the particular items or publications.

(c) Indicate time when call signs and frequencies become effective.

(3) Instructions for the establishment and operation of such special channels of radio communication as may be required for joint operations, including:

(a) Assignment of personnel and special equipment when necessary.

(b) Operating schedules, etc.

(4) Authentication instructions.

(5) Special instructions regarding non-military facilities, including supervision, allocation to various services, and designation of call signs.

(6) Coordinate inter-service requirements.

e. Radar:

(1) Radar search plans, designation of sectors to be searched by individual stations, based on capabilities and limitations of the equipment.

(2) Search doctrine (or policy), standard or special.

(3) Methods of passing Radar information, warning net.

(4) IFF (identification, friend or foe) instructions.

(5) Fighter direction procedures, instructions regarding GCI (ground control interception) and AI (aircraft interception).

f. Radio Intelligence: include such information and instructions as may be necessary for:

(1) Coordinated action of all radio intelligence services.

(2) Distribution (or exchange) of radio intelligence.

g. Visual:

(1) General instructions as necessary, including:

(a) Restrictions as to the use of visual signal equipment, daylight and darkness.

(b) Priority of various means (flags, searchlights, etc)

(c) Meanings of special pyrotechnic signals

(2) Visual call signs:

(a) Call signs needed for intercommunication between the services.

(b) Guide for the distribution of call signs to all interested elements.

(c) Time when call signs are effective

(3) Designation of such visual codes as may be required for joint operations.

(4) Instructions for the establishment and operation of such special visual channels as may be required between elements of the participating services.

h. Wire:

(1) Instructions for installation, operation and maintenance of such wire communications as may be needed, including any restrictions.

(2) Organization of nets.

(3) Call signs needed for intercommunication between participating services.

(4) Special instructions regarding non-military facilities, including supervision, allocation to various services, dosignation of call signs.

i. Messenger Service: instructions for the operation of a messenger service between various elements which should state schedules, means of transportation, and whether officer or enlisted man.

j. Recognition signals:

(1) Recognition doctrine (or policy)

(2) List of the types to be used, day and night, with statements of time when each becomes effective.

(3) Recognition signals (surface craft, submarines, aircraft and ground forces:

(a) Type or types to be used.

(b) Prescribed signals and maneuvers, including those used by aircraft approaching surface craft.

(c) Identifying marks on ships, special flags lights, etc.

(4) Guide for distribution.

k. Communication security and cryptanalytic activities: instructions to insure the coordination of the communication security activities, and the prompt exchange of technical information between cryptanalytic elements.

l. Codes and ciphers:

(1) Systems to be used, effective dates and restrictions

(2) Guide for the distribution of codes and ciphers.

m. Equipment and personnel:

(1) Instructions concerning liaison between services and the training and assignment of special personnel.

(2) Considerations of equipment of the various services, the limitations of use in areas of operation, available replacements, interchangeability and spares.

n. Grid system prescribed.

(added) (C 1, 1 July 1943)

199. CONSIDERATIONS EFFECTING COMMUNICATION MEANS. - a. Amphibious operations present communications problems which differ in many respects from those encountered in other types of fleet or field operations. These different problems impose a heavy burden on the normal communication agencies. Special training is required and additional personnel and special equipment must be provided.

b. The nature of amphibious operations is such that great dependence must be placed on the use of radio to provide adequate and efficient communication facilities which are prerequisites to success.

c. With radio assuming the largest share of the communication burden, the limitations placed on the use of wire must be recognized.

(1) Wire is completely impossible in the early stages of the assault, and its later use must depend entirely on the development of the situation.

(2) The timely use of wire communication facilities depends upon the keen observation and good judgment on the part of the Signal and Communication Officers concerned. When the situation has developed to where wire can safely and profitably be employed, this means should be effected to relieve the radio channels and thus provide additional operational security.

(C 1, 1 July 1943)

SECTION II (revised)

COMMUNICATION ORGANIZATION FOR THE LANDING ASSAULT

200. GENERAL - A standard system of radio nets for the progressive phases of the debarkation and assault operations are contained in four phases as outlined herein.

(C 1, 1 July 1943)

201. RADIO NETS FOR THE PROGRESSIVE PHASES OF OPERATIONS - a. Phase 1. - (1) This phase covers the following evolutions: debarkation of troops, loading of boats, organization of the boat waves, movement of waves to rendezvous area, movement of combat group to line of departure, and final movement to the beach.

(2) During this phase radio silence is normal and communications are restricted to visual means (arm and flag signals during daylight, and carefully screened lights in darkness). However, military tactical radio nets are manned in complete readiness for instant use, should the element of surprise be lost or an emergency arise. Continuous listening watches are maintained at all times.

(3) From the standpoint of efficiency of radio communication it is highly desirable that certain commanders and special communication teams be embarked together in certain boats as follows, in order to establish a standard system of radio nets.

(a) The combat Group Commander with the Landing Team Commander.

(b) The Assistant Combat Group Commander with the Landing Team Executive officer.

(c) The shore fire control party boat adjacent to that of the landing team commander in order to be able to call for direct fire while the landing force is waterborne.

(d) The air liaison party in a boat adjacent to that of the landing team commander if direct air support is provided.

(e) The shore party commander and the beachmaster should be embarked in adjacent boats of the same wave.

(4) Special radio nets: (a) When conditions require the provision of a combat Flotilla Commander a special net is provided which will include the flotilla commander, each of his combat group commanders and transport division commanders. This net is omitted when flotilla organization is not used. (See diagram 5).

(b) The control vessel must be prepared to operate in the combat group commander's circuit, the commander's control vessels circuit and the fire support group supporting the beach. The commander of the transport division in the headquarters ship will listen in on the control vessel circuit. The Division Headquarters ship should operate a transmitter on this circuit if available, and the naval force commander will maintain the listening watch on this circuit during the initial stages of the ship-to-shore movement. If a guide plane be employed the boat group commander and the combat team commanders will maintain listening watches on the guide plane frequency. The boat group commander will also operate a set in the combat team net. The frequency for this net must be prescribed by a higher echelon.

(5) Accompanying diagrams for the radio nets and circuits used in Phase 1 are listed below:

Boat Control Circuit	Diagram 1
Transport Division Command Circuit	Diagram 2
Direct Support Aircraft Circuit	Diagram 3
Combat Team Net	Diagram 4
Boat Group Control Circuit	Diagram 5

b. Phase 2. The second phase of the landing attack is the period when landing teams are ashore and combat team communications are still afloat. During this phase the radio, messenger, visual and sound systems are normal. Accompanying diagram 6 is a consolidation of the various circuits and nets during this phase.

c. Phase 3. In this phase of the attack, the several combat team HQs have been established ashore. The initial landing teams have proceeded further inland. All circuits remain unchanged except that some circuits now terminate on means which formerly were afloat.

d. Phase 4. In the fourth and final phase of the landing attack the commander of the landing force has established headquarters ashore. The shore party is in visual communication with the unloading transports and cargo ships. Naval, air and main fire support continue as long as they are needed. In this phase all signal communications will approach Intra Service normal systems. Wire, radio, messenger, visual and sound will have been installed and in operation and modifications will be initiated in anticipation of the consolidation. The wire system will be initiated during this phase and developed as early as the situation permits in order to tie the Division Hq's into the multi-channel radio system. The accompanying diagram 7 is a consolidation of the various circuits and nets used during this phase, prior to installation of the wire system.

(C 1, 1 July 1943)

202. PERSONNEL AND EQUIPMENT. - a. Signal communication plans provide signal personnel and equipment to replace losses during the ship-to-shore movement as well as during the early subsequent operations ashore, and to meet the needs of the situation for special eqipment. This applies particularly to the assault combat teams and the shore parties.

b. All signal communication equipment of the assault combat teams and shore parties is portable. Adequate equipment for laying wire is provided. To guard against total loss of equipment through the sinking of a boat, it is desirable to provide duplicate sets of equipment in separate boats. The lack of transportation and the disorganization likely to prevail during the early operations ashore impose unusual demands on the signal communication personnel of the assault combat teams. This personnel is frequently augmented by the attachment of regimental or higher unit signal communication personnel.

c. In every case, wire to replace that expended by assault combat teams and reel units, with transportation therefor, for the mechanical laying of wire are sent ashore and pushed forward at the earliest opportunity.

(C 1, 1 July 1943)

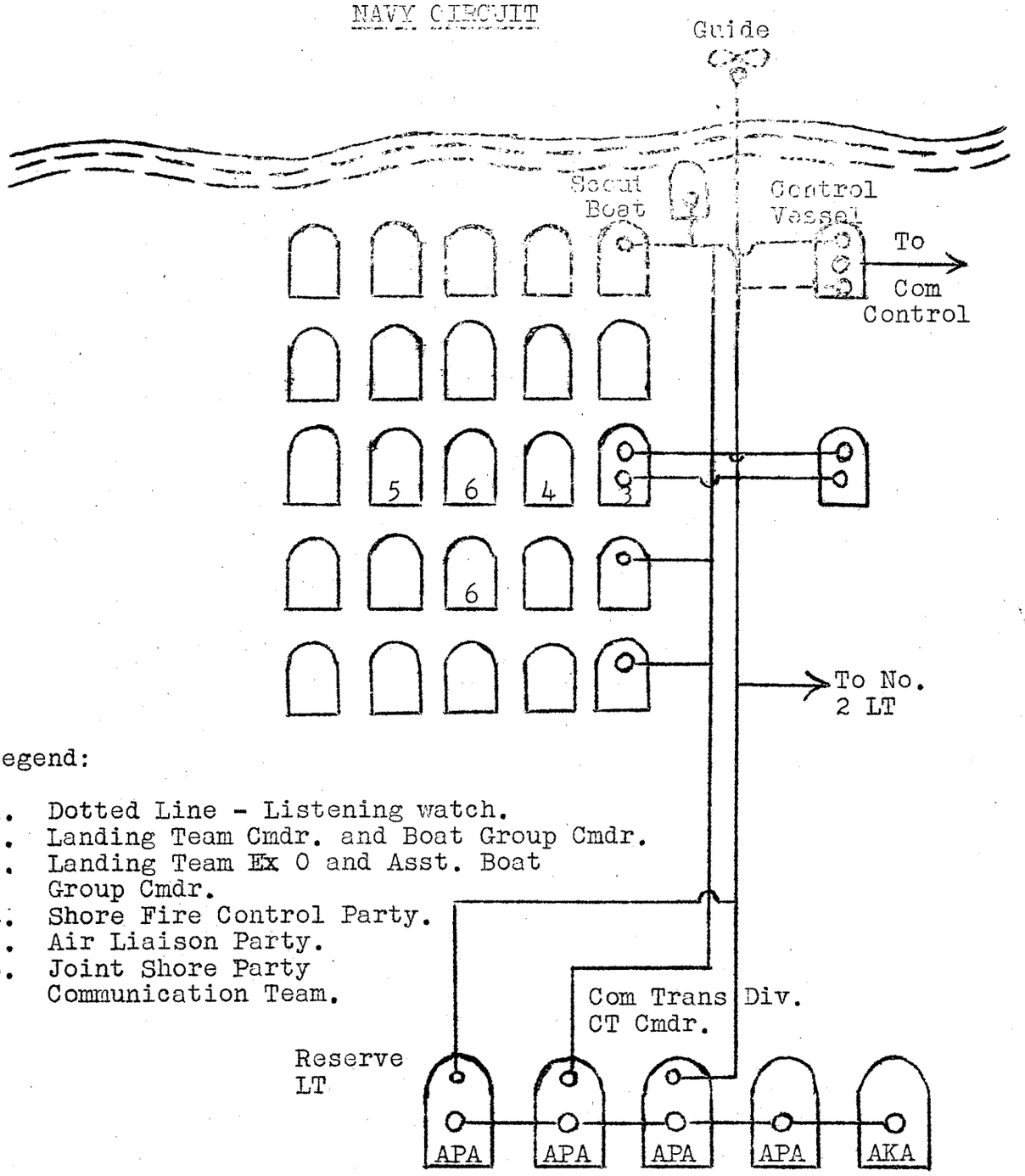
[redacted]

PHASE I

BOAT CONTROL CIRCUITS

RADIO -- SCR-511 or TBY

NAVY CIRCUIT



Legend:

1. Dotted Line - Listening watch.
2. Landing Team Cmdr. and Boat Group Cmdr.
3. Landing Team Ex O and Asst. Boat Group Cmdr.
4. Shore Fire Control Party.
5. Air Liaison Party.
6. Joint Shore Party Communication Team.

DIAGRAM #1

[redacted]

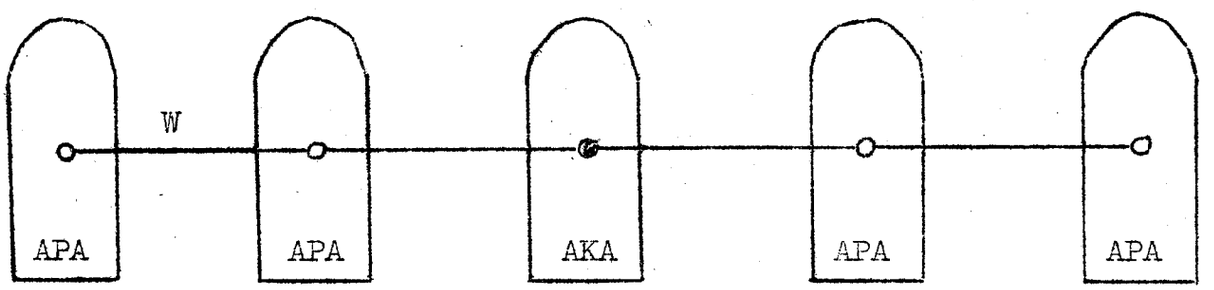
[redacted]

PHASES I - IV

TRANSPORT DIVISION COMMAND CIRCUIT

RADIO - Ship's Radio

NAVY CIRCUIT



Comtransdiv
CT Comdr.

THIS IS AN EMERGENCY CIRCUIT

This circuit gives the Transport Division Commander control of the ships under his command. In practice two paralleled circuits may be employed, one a voice circuit for emergency use, the second a key circuit for other purposes. Visual signalling is used whenever possible.

DIAGRAM #2

[redacted]

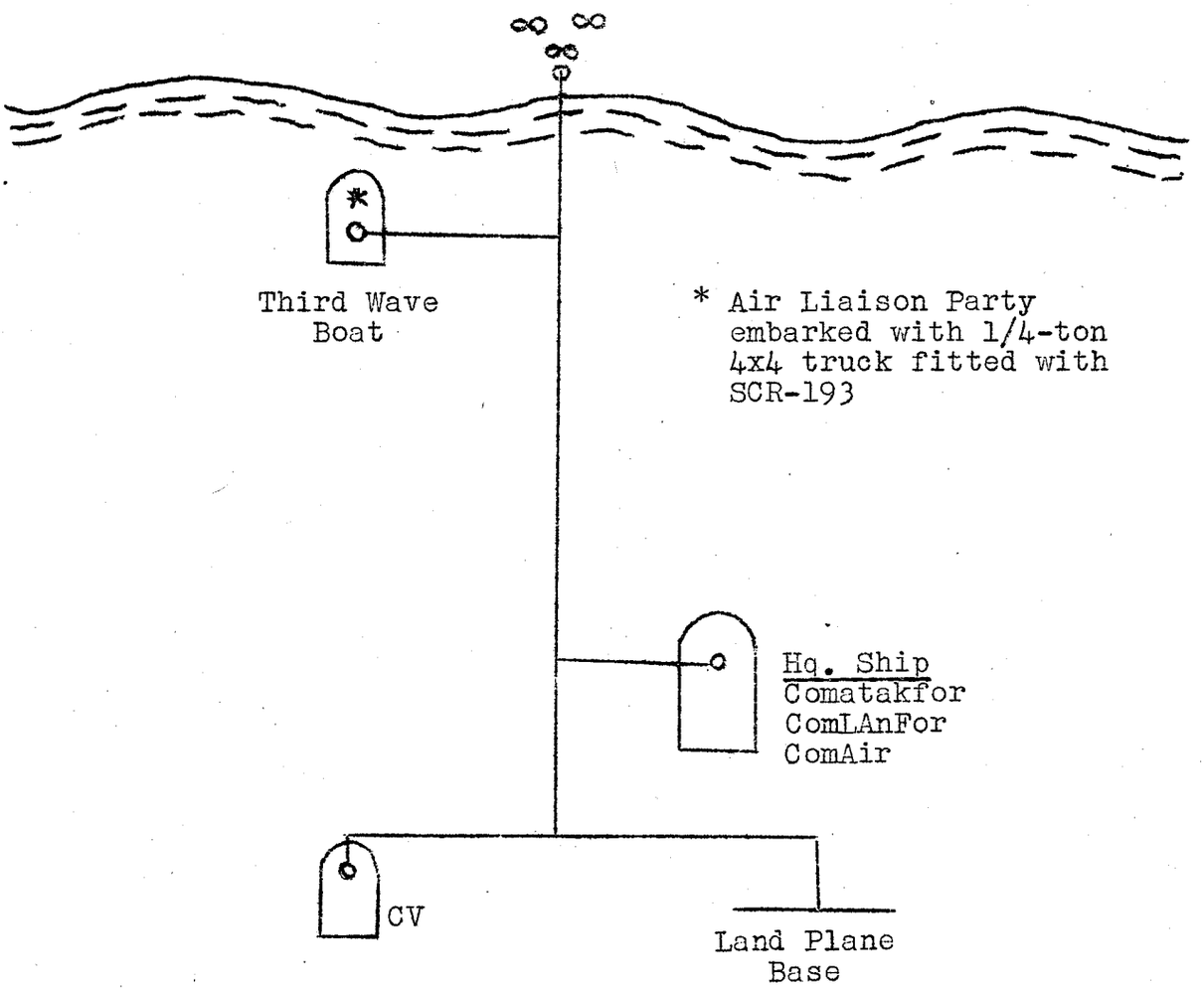
[redacted]

PHASE I

DIRECT SUPPORT AIRCRAFT CIRCUIT

RADIO - SCR-193

JOINT CIRCUIT



The purpose of this circuit is to afford communication between the supporting aircraft and the assault troops. The Air Liaison party may go ashore with a Landing Team; or later with the CT Headquarters.

DIAGRAM #3

[redacted]

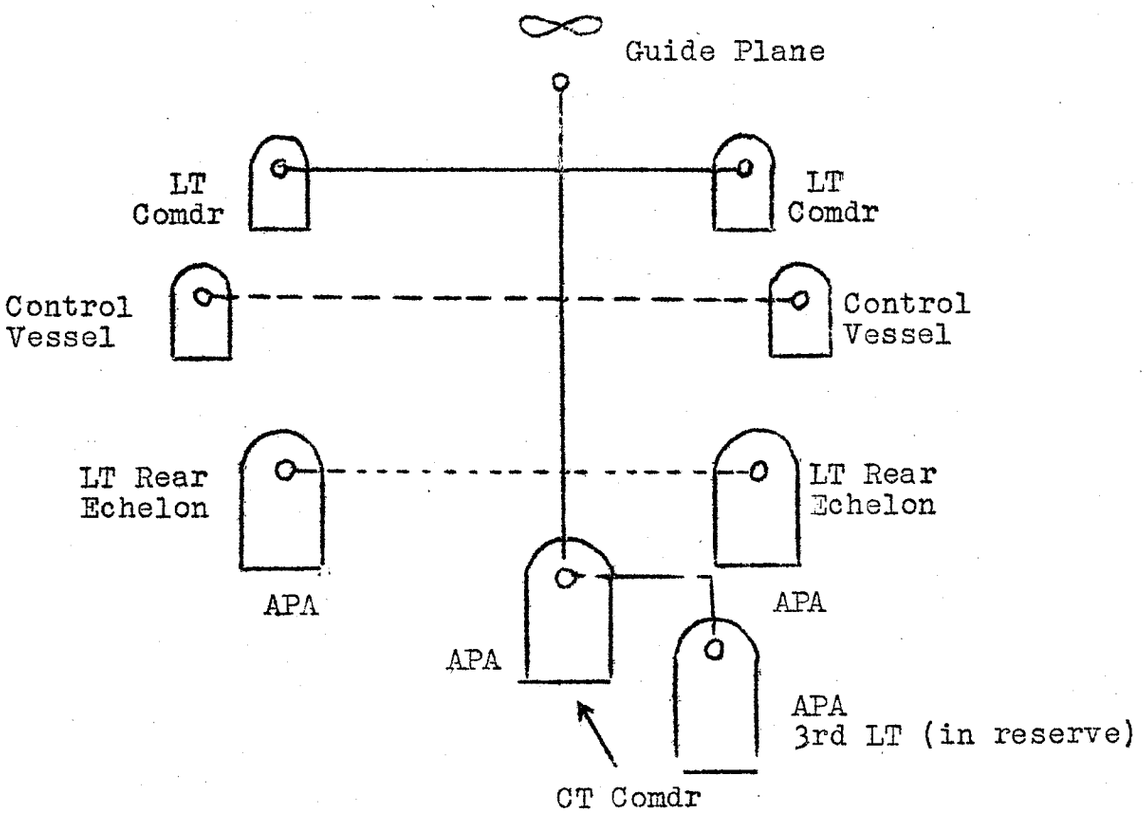
[redacted] UNCLASSIFIED

PHASE I

COMBAT TEAM NET

RADIO -- TBX or SCR - 284

ARMY OR MARINE NET



Dotted lines indicate listening watches only.

Each Transport carries a battalion Landing Team. This circuit (net) is between the Combat Team commander, on the Trans Div Flagship and the Landing Team commanders for tactical control. One Landing team is normally kept in reserve either in the transport or in boats. Each Landing Team communication platoon is divided into two echelons, a forward and a rear, the latter maintaining a listening watch on this net. The several landing teams operate on different beaches. A guide plane may be on this circuit in order to assist the boat waves to the beaches. Control vessels should listen for information.

DIAGRAM #4

[redacted]

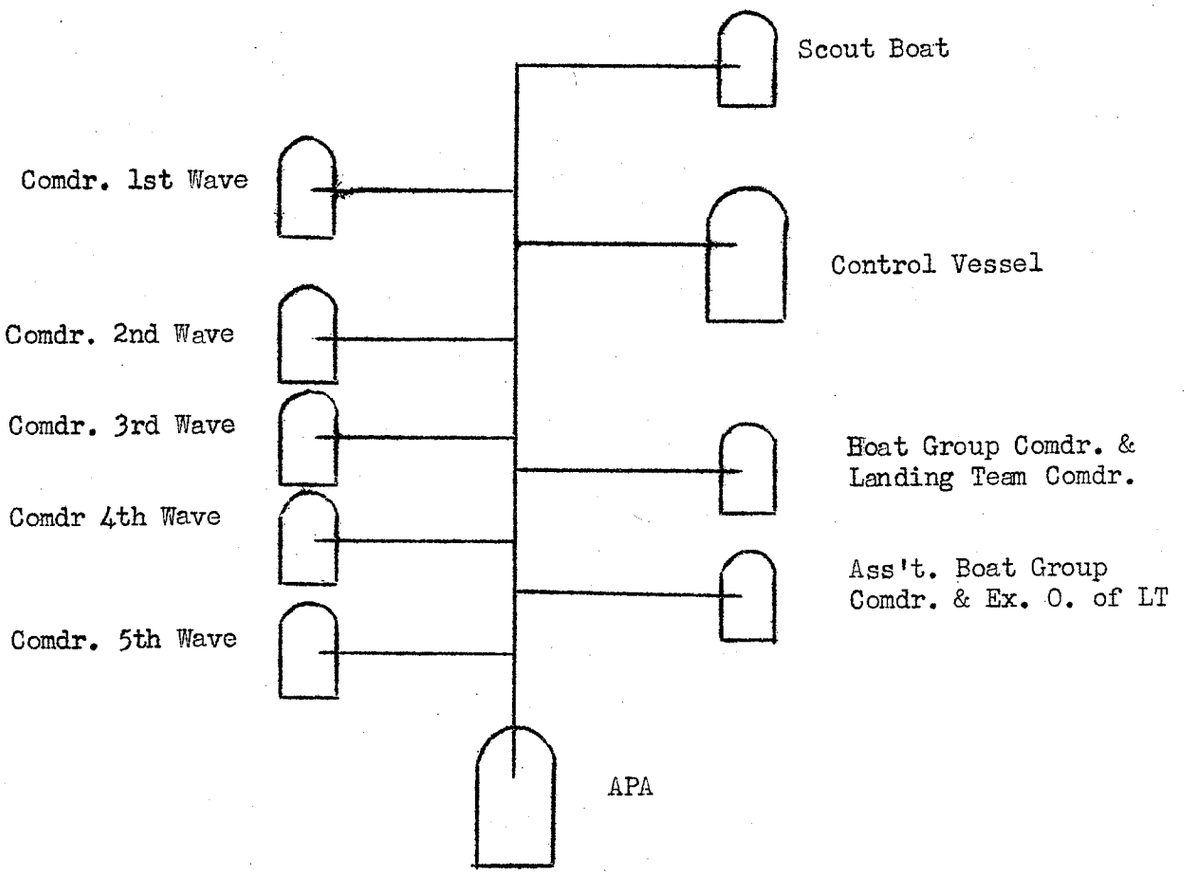
UNCLASSIFIED

PHASE I & II

BOAT GROUP CONTROL CIRCUIT

RADIO - TBY or SCR-511

NAVY CIRCUIT



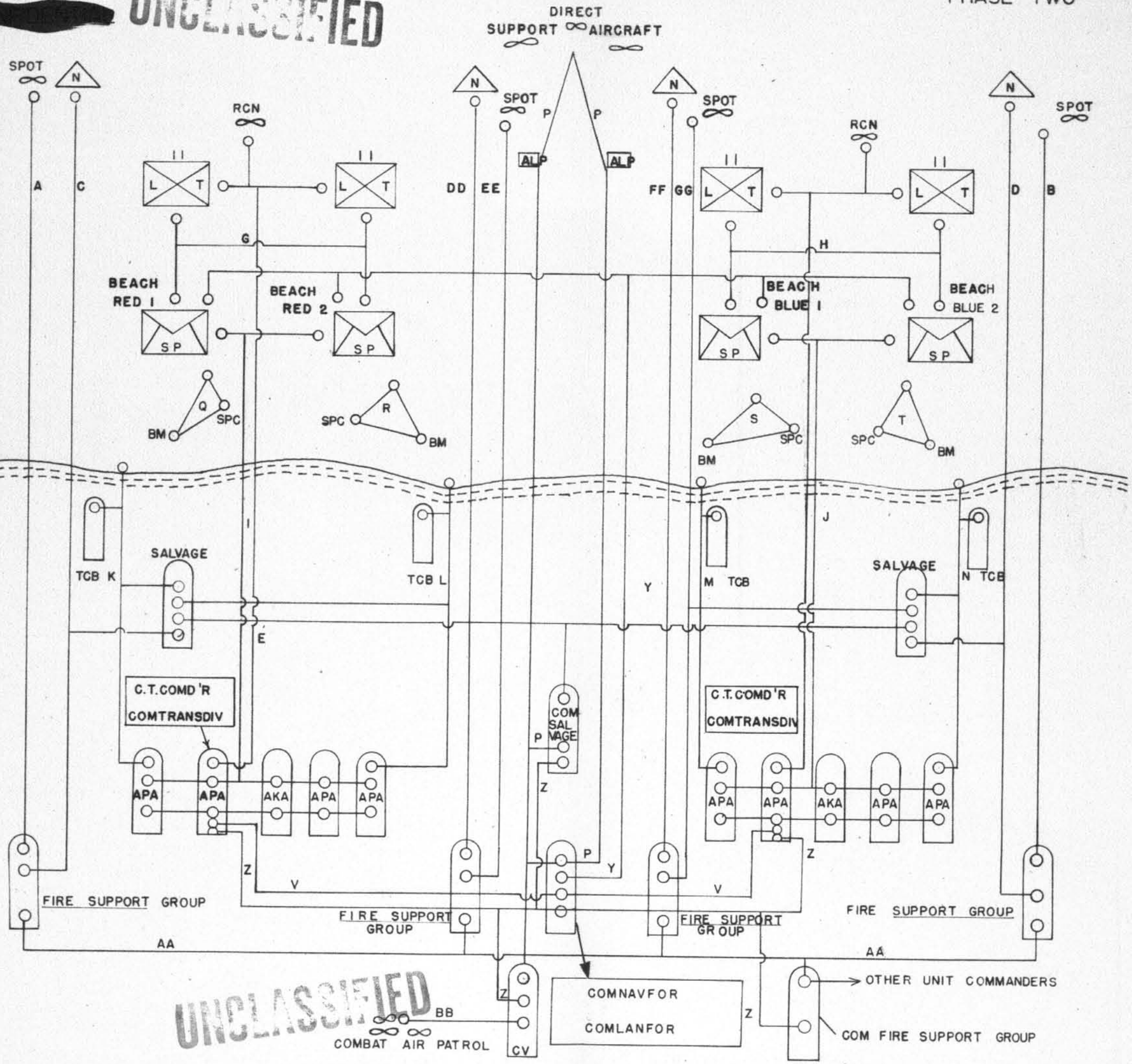
Note: This diagram doesnot indicate the correct position of the boats relative to the waves, but merely indicates the communication net.

DIAGRAM # 5

[redacted] UNCLASSIFIED

AMPHIBIOUS RADIO CHANNELS

PHASE TWO



UNCLASSIFIED

PHASE IV

[redacted]

AMPHIBIOUS RADIO CHANNELS

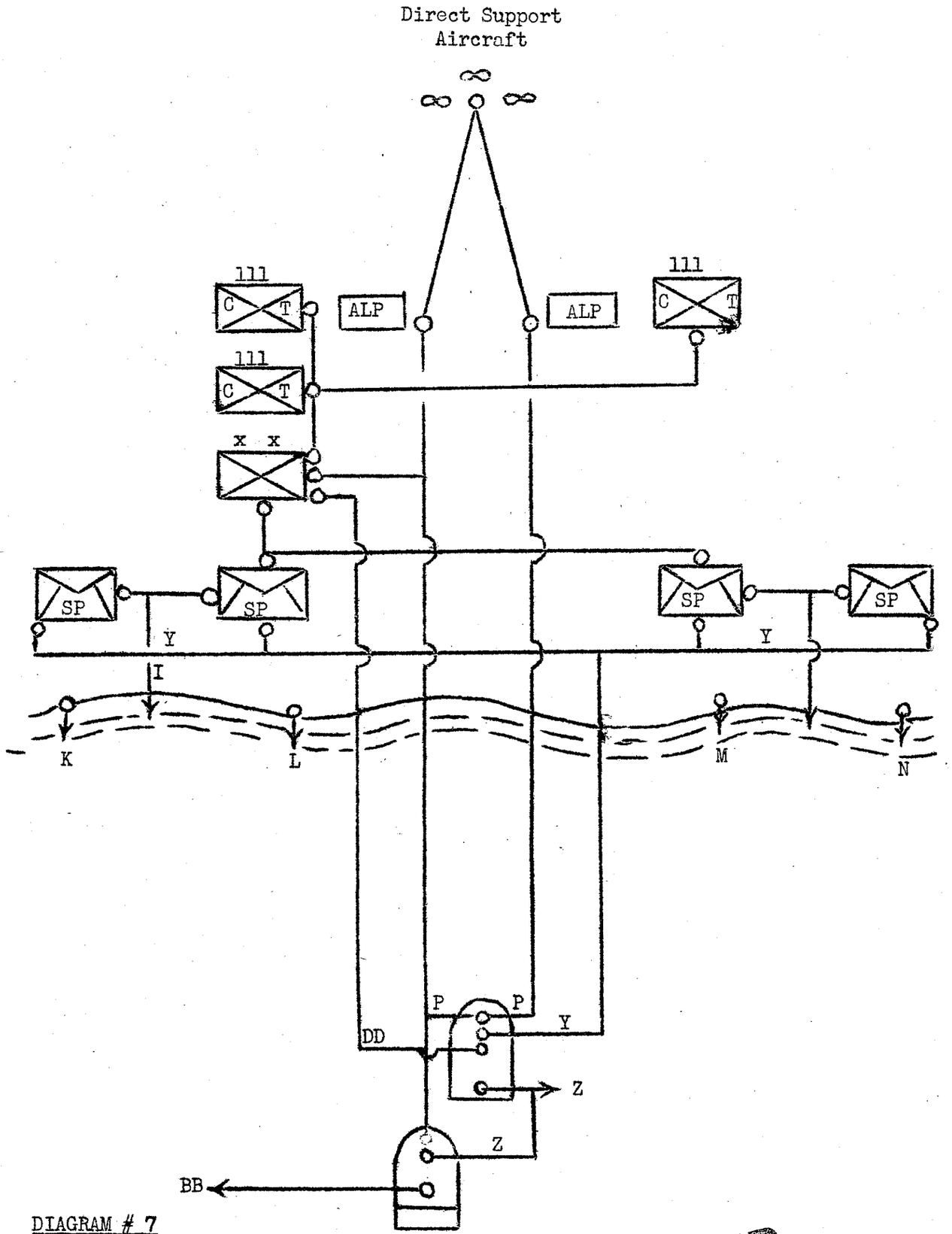


DIAGRAM # 7

SECTION III (added)

AIR SUPPORT COMMUNICATIONS DURING LANDING ASSAULT

203. GENERAL. The principles governing communications for air support are of similar nature to those encountered in the communications phases of ground operations, the noticeable difference being brought about by the strategic employment of air formations in support of the particular operation.

204. CONTROL COMMUNICATIONS. In all air amphibious operations, the Air Force Commander exercising control from Air Force Headquarters on the near shore, requires certain communication channels (see diagram 8) to the Headquarters ship for the control and direction of aircraft, and to provide liaison between the assault force Headquarters Ship and the Air Force Headquarters ashore. In addition it will be necessary to provide facilities for the reception of Radar information broadcast from the friendly shore and later from the far shore.

205. FIGHTER CONTROL SHIP. If the operation permits, consideration should be given to the employment of a Fighter Control Ship to relieve congestion aboard the assault force Headquarters Ship, aircraft and ground units ashore. This facility is desirable, if practicable, to provide duplicate communication facilities and to relieve congestion and control activities aboard the assault force Headquarters Ship (see diagram 9 and 12).

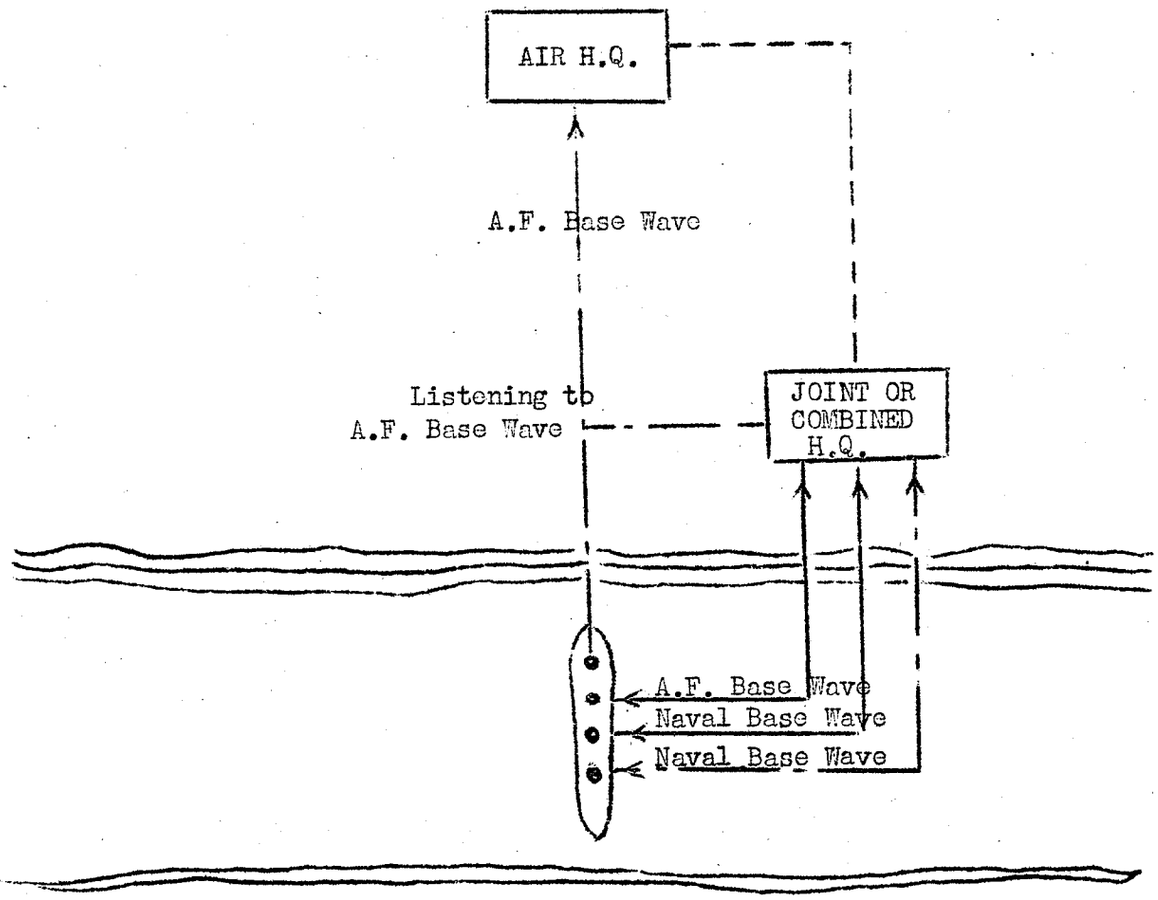
206. COMMUNICATIONS ASHORE. The air force portion of the assault force headquarters ashore must be provided with communication facilities to the assault force headquarters ship and aircraft and ground units ashore. The assault force headquarters ship and/or fighter control ships should be used until the build-up ashore provides adequate communication facilities to sustain the communications required. The build-up of the Radar network ashore should begin by the landing and siting of light warning sets at the earliest opportunity in order to give maximum cover to the landing areas. Ground control interceptor equipment must be landed as soon thereafter as possible to establish nucleus fighter control. Control of low cover fighters by day to be retained by the assault force headquarters ship and/or fighter control ships until the build-up of communication facilities ashore permits the transfer of this control thereto. Control of high altitude fighters to be retained by the more permanent system on the friendly shore until adequate sector control organizations exist on the beachhead (see diagram 10).

207. COMMUNICATIONS ASHORE FOR ADVANCE LANDING GROUNDS. When advanced landing grounds are established on the beachhead they will require communications to aircraft and to the assault force headquarters. Air force elements of the assault force headquarters ashore to be equipped with communication facilities to enable them to control aircraft based on such advanced landing grounds. Additional Radar equipment and ground observers to be integrated into the overall scheme at this point, with a view to their incorporation into the sector fighter control organization. (see diagram 11).

(C 1, 1 July 1943)

EXTRA COMMUNICATIONS REQUIRED AT SHORE

BASES IN SHORT RANGE OPERATIONS



Note

Naval channels shown may by arrangement act as alternate routes for Air Forces Traffic

LEGEND

R'T

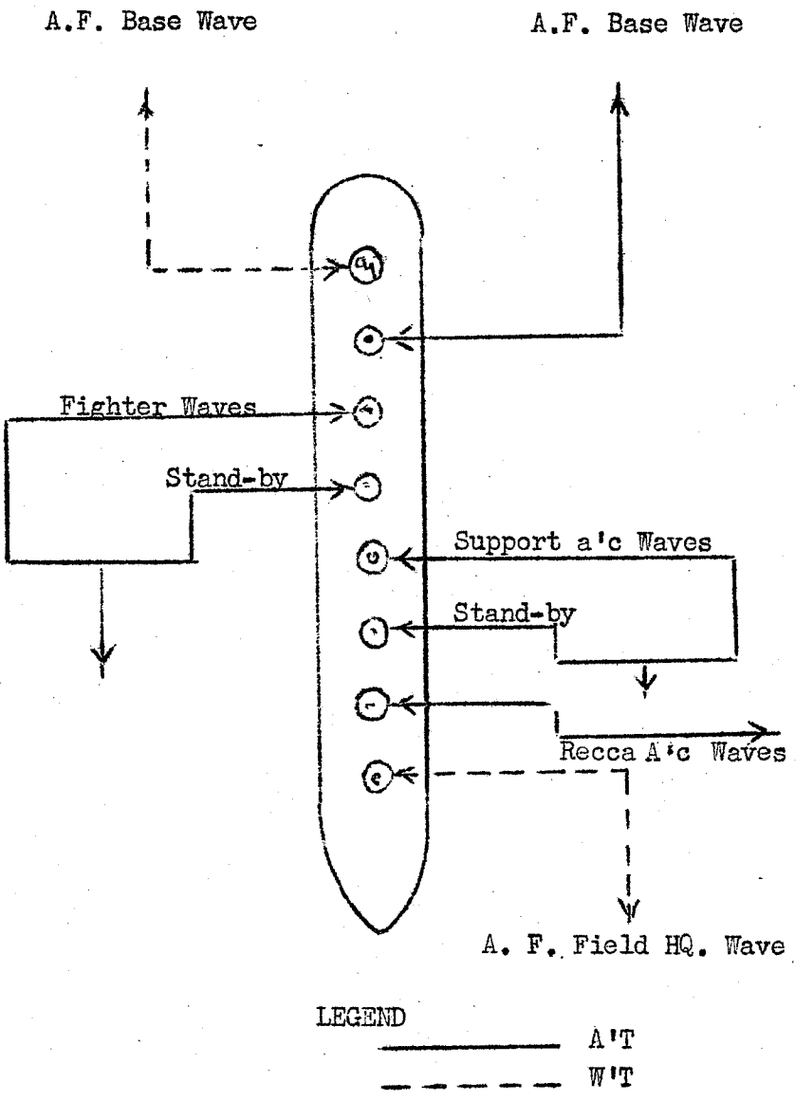
W'T

L'L

CHANNELS	APPROX RANGE REQ
AF BASE WAVE H'FW'T	UP TO 100 MILES
AF BASE WAVE VHER'T	UP TO 100 MILES

DIAGRAM # 8

COMMUNICATIONS IN H.Q. SHIP FOR SHORT RANGE OPERATIONS (DESTROYER OR SIMILAR VESSEL)

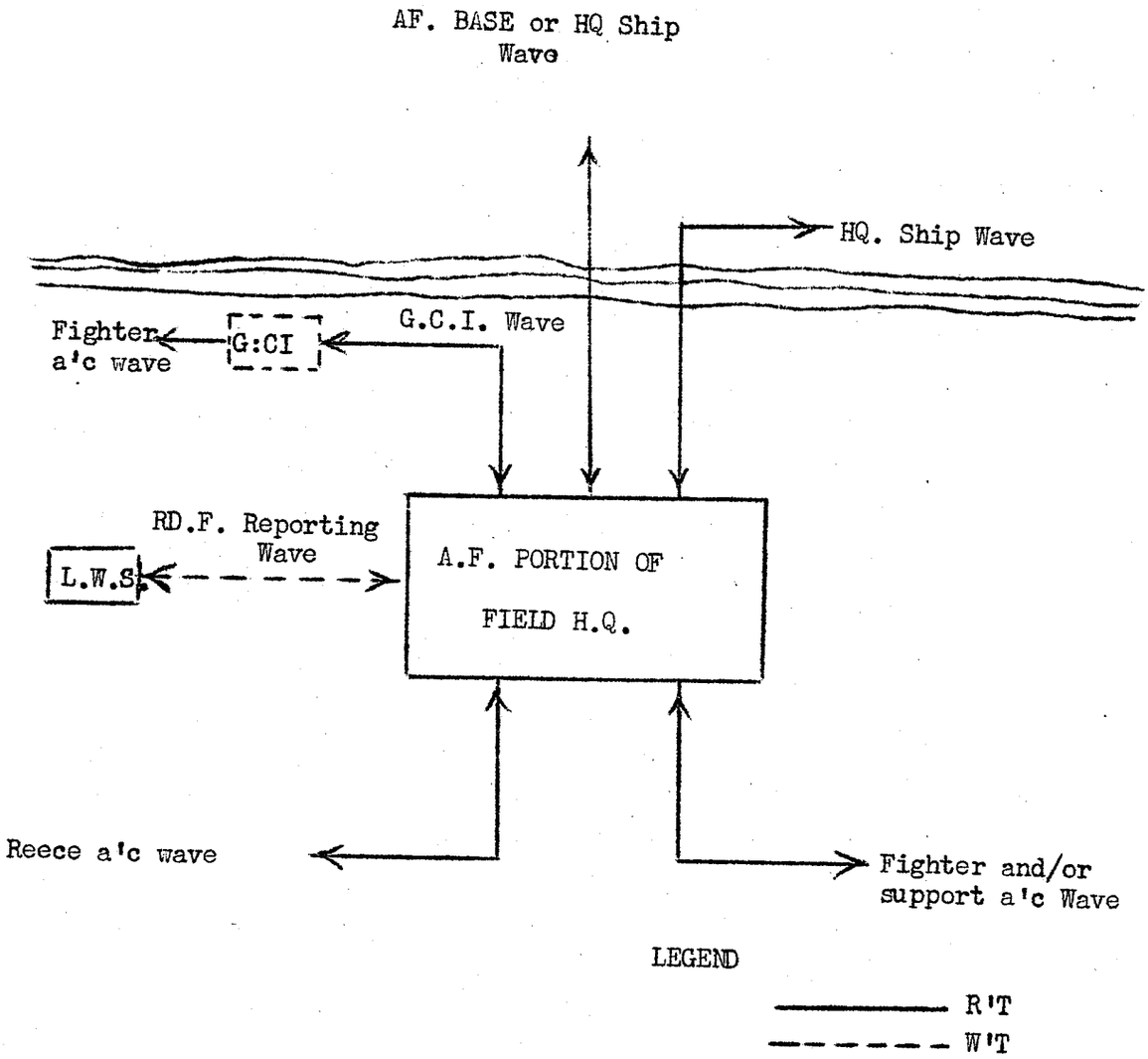


CHANNEL	APPROX RANGE REQ.
AF BASE WAVE H'FW'T	UP TO 100 MILES
AF BASE WAVE VHF W'T	UP TO 70 MILES
FIGHTER WAVES	STRONG SIGNAL
FIGHTER WAVES STAND BY	——
SUPPORT A'C WAVES	
SUPPORT A'C WAVES STAND BY)	
RECCE A'C WAVE	UP TO 70 MILES
ASSAULT FORCE HQWAVE	UP TO 30 MILES

DIAGRAM # 9

SKELETON AIR FORCE COMMUNICATIONS

REQUIRED BY AN A.F. FIELD H.Q.



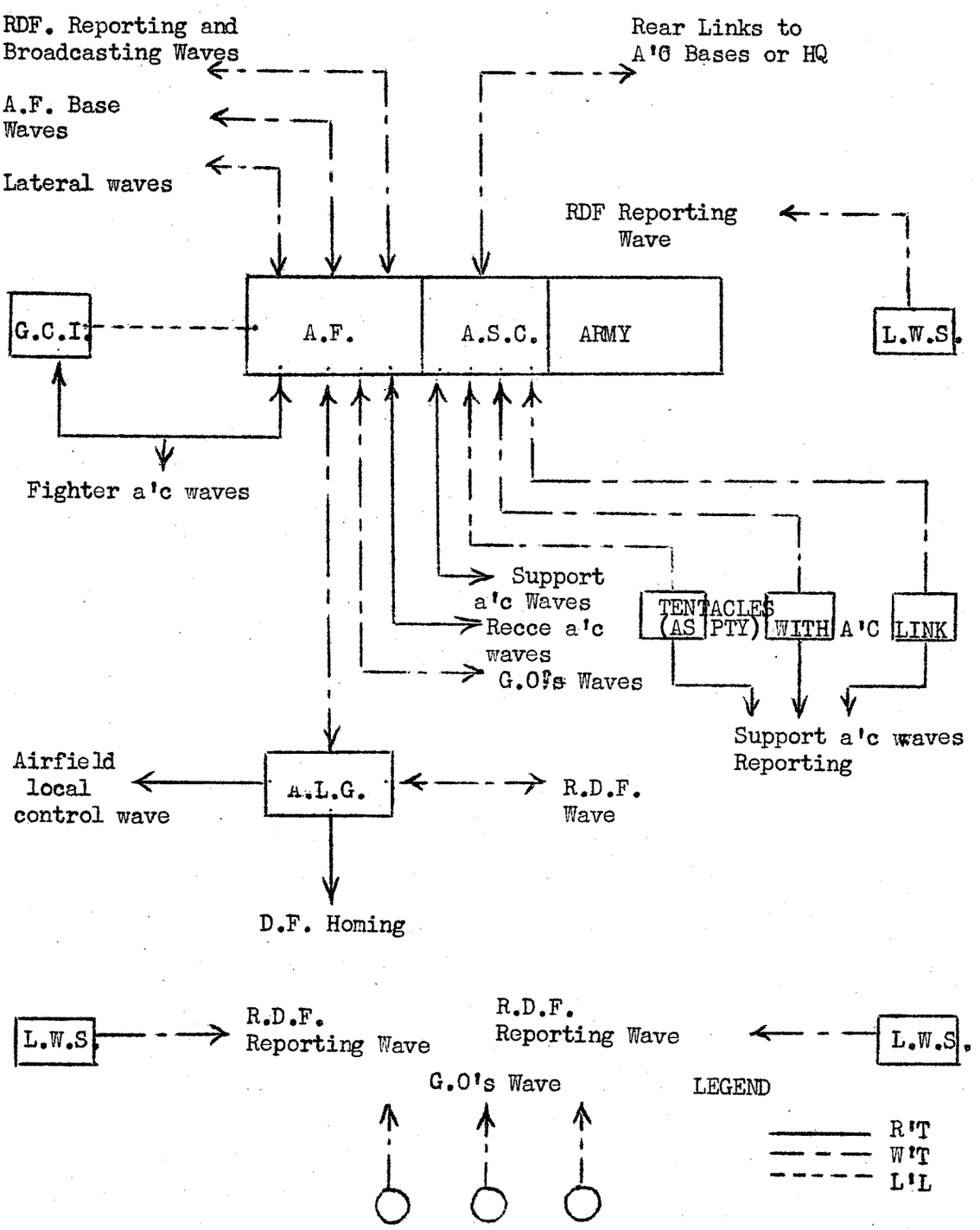
CHANNEL	APPROX. RANGE REQ.
AF BASE OR HQ SHIP WAVE)	UP TO 500 MILES
AF BASE OR HQ SHIP WAVE)	UP TO 50 MILES
SUPPORT a'c WAVE	---
RECCE a'c WAVE	
RDF REPORTING WAVE	50 TO 70 MILES
FIGHTER AND/OR SUPPORT	a/c Wave)
GCI. WAVE	UP TO 30 MILES

DIAGRAM # 10

COMMUNICATIONS FOR AIR FORCE FIELD H.Q.

ASHORE - INITIAL A.L.G. COMMUNICATIONS

BEFORE ESTABLISHMENT OF SOR'FR - - - -



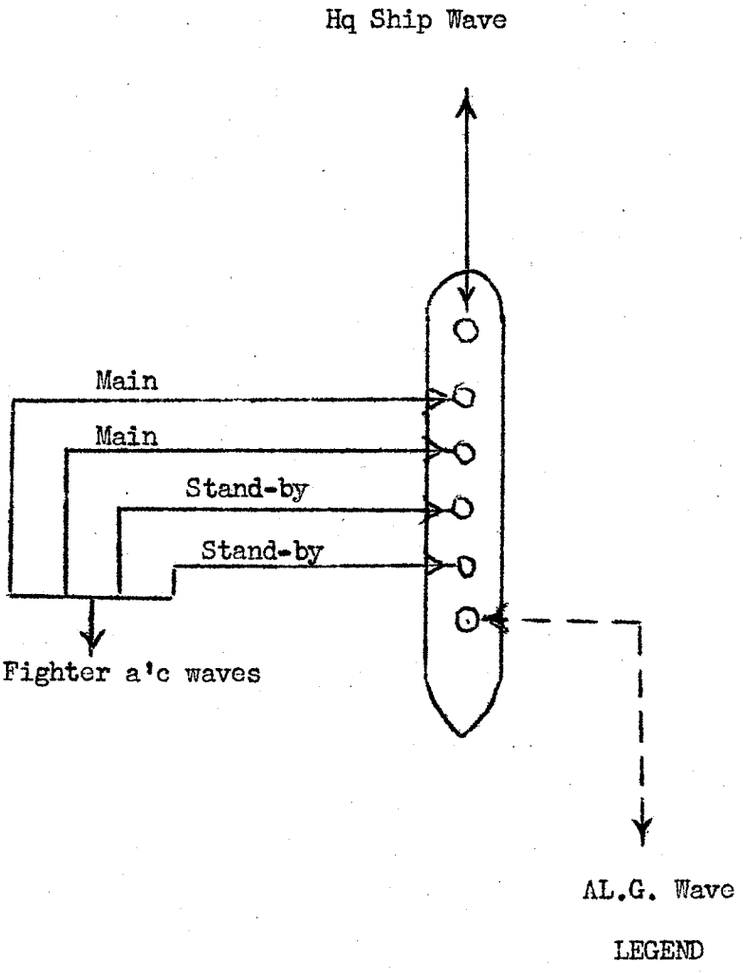
GROUND OVSERVERS (W.U)

CHANNEL	Approx Range Required
Lateral Waves	Up to 40 Miles
A.F. Base waves	Up to 500 Miles
R.D.F. Reporting-	---
Broadcasting wave	---
Fighter a'c waves	---
Rear links to a'c bases or HQ	Up to 100 miles
Air support waves	Up to 50 miles
Support a'c waves	---
Recce a'c waves	---
ALG Waves	Up to 30 miles
Ground Observers Wave	Up to 50 Miles

DIAGRAM # 11

COMMUNICATIONS FIGHTER CONTROL SHIP

USED IN CONJUNCTION WITH HQ SHIP



LEGEND

——— R'T

– – – – – W'T

CHANNEL	APPROX RANGE REQ.
Inter-ship wave	Up to 30 miles
Fighter A'C Waves	--
A.L.G Wave	Up to 50 Miles

DIAGRAM 12

CHAPTER 9

FIELD ARTILLERY, ANTIAIRCRAFT PROTECTION, TANK AND ENGINEER UNITS, AND CHEMICALS.

SECTION I

FIELD ARTILLERY

208. EMPLOYMENT OF FIELD ARTILLERY

* * * * * *

b. * * * * * *

(added) The Air Force will also provide a considerable measure of support in accordance with a prearranged plan.

c. Normally in a landing operation field artillery must reach the beach before it can go into action. This factor together with the necessity of reinforcing or relieving naval guns at the earliest possible time, makes it necessary to employ field artillery with great boldness. Divisional light artillery can add considerably to the volume of supporting fires while still afloat, which is possible when fired from special craft. Every advantage must be taken to get the artillery ashore at the earliest moment and in position to assume its primary role of close support of the infantry. Substituting self-propelled guns, both 105mm and 155mm, for organic towed guns renders definite advantages to the assault division.

d. * * * * * *

(C 1, 1 July 1943)

SECTION III

TANK UNITS

216. EMPLOYMENT. a. Tank units are particularly valuable in a landing operation. They are effective against beach defense machine guns and barbed wire. They assist the advance of assault units during the period when field artillery support is lacking, and are used in later phases in attacks against especially stubborn resistance and counterattacks. In the assault of a strongly fortified coast, tanks are considered as heavily armored assault guns necessary in the reduction of the fortifications. Due to mines on the beaches and extremely heavy defensive fire, the tanks in the leading waves will probably not be able to leave the beaches, but in addition to the fire power they give before and even after losing their mobility, they will also be of considerable value as a shield for the infantry in the leading waves.

b. * * * * * *

(C 1, 1 July 1943)

CHAPTER II

SPECIAL TRAINING FOR LANDING OPERATIONS

SECTION III

JOINT SIGNAL COMMUNICATION TRAINING

284. TRAINING OF PERSONNEL. a. All communications personnel should be trained in the signal communication means to be used with the ground units to be supported during the landing. Such training should be in accordance with FM 24-6 and FM 24-10.

b. This training should be effected by formation of the shore party communication teams of military and navy personnel to receive joint training in advance of the contemplated operation. Such joint training should be literally in the same classroom, at the same time, and from the same instructor.

c. Shore fire control parties and air support parties must likewise receive joint training in their respective specialities.

(C 1, 1 July 1943)

286. NAVAL LIAISON AND COMMUNICATION DETACHMENTS.

* * * * * * * * * * * *

Note: Use of pyrotechnics should be reserved as emergency means and not relied upon to convey important information, except as a last resort.

(C 1, 1 July 1943)

APPENDIX II

TYPES OF NAVY SHIPS AND AIRCRAFT

1. SHIPS

* * * * * * * * * * * *

Auxiliary

* * * * * * * * * * * *

Attack Cargo Ship (Combat loaded) - ARA
Attack Transport Ship (Combat loaded) - APA
Headquarters Ship - AGC

(C 1, 1 July 1943)

APPENDIX III

SMALL BOAT TYPES

* * * **** * * * * * * * *

NOTE: Boats types included herein are of no particular interest in this operation. Information on types to be used is available in U.S. Fleet Training Publication No. 207.

(C 1, 1 July 1943)