



HEADQUARTERS 1ST US INFANTRY DIVISION  
A. P. O. #1, U. S. ARMY

By authority of :  
CG, 1st US Inf Div :  
28 March 1944 :  
Initials: :

28 March 1944

Copy No. 047

SUBJECT: Operation "NEPTUNE"

TO : See distribution

1. Reference Operation "NEPTUNE" the following plans will be prepared by the officers or commanders of units designated and will be submitted in draft form to G-3, 1st US Infantry Division by 2400/3-31-44. When approved by this headquarters these plans will be included in the Force "O" (1st US Infantry Division plus attached) Field Order, as annexes.

<u>ANNEX NO.</u>	<u>TYPE OF PLAN</u>	<u>RESPONSIBLE OFFICER OR AGENCY</u>
1.	Operations Overlay	Lt. Col. Gibb
2.	Intelligence Plan	Major Evans
3.	Craft Assignment Table, Landing Table Leading Plan, Troop List, Ship List, Landing Diagrams, Beach Limits and Designations.	Lt. Col. Gibb
4.	G-4 Plan (Administrative Order)	Lt. Col. Eyster
<u>Appendices</u>		
(1)	Medical Plan	- Col. VanValin
(2)	QM Plan	- Lt. Col. Wright
(3)	Ordnance Plan	- Major Batori
(4)	Engineer Supply Plan	- Lt. Col. Gara
(5)	Signal Supply Plan	- Lt. Col. Pickett
(6)	Chemical Supply Plan	- Lt. Col. Cunin
(7)	ESB Supply and Beach Maintenance Plan	- General HOGE
(8)	G-1 Plan	- Lt. Col. Ware
(9)	Civil Affairs	- Lt. Col. Ware
5.	Signal Operations Plan	Col. Pickett
6.	Engineer Operations Plan	Lt. Col. Gara
7.	Chemical Operations Plan	Lt. Col. Cunin
8.	ESB Operations Plan	General HOGE (individual plans to be submitted by Brig Comdrs)
9.	Artillery Plan to include Naval Gunfire Support after H-hour	General ANDRUS
10.	AA Plan	Colonel Madison

NOW CHANGED TO:  
**CANCELLED**  
 BY AUTHORITY OF THE ADJUTANT GENERAL  
 DOWNGRADING COMMITTEE, 3 July 46...

22268

~~TOP SECRET~~

<u>INDEX NO.</u>	<u>TYPE OF PLAN</u>	<u>RESPONSIBLE OFFICER OR AGENCY</u>
11.	Prearranged Air and Naval Gunfire Support Plan to include naval support craft and firing of organic and attached weapons from craft	General ANDRUS
12.	Air Support Plan (after H-hour)	Lt. Col. Gibb
13.	AT Plan	Lt. Col. Gibb
14.	Tank Employment Plan	Col. McLaughlin

Force Commanders (16, 116, 18) and Ranger Forces will each submit an Outline Plan for their portions of the Operation by 2400/3-21-44.

## 2. NOTES

### a. (1) The Intelligence Plan will include:

Essential Elements of information.  
 Reconnaissance Plan  
 Map Plan  
 SIG Plan

(2) The Intelligence Plan will refer to "Terrain Study" which will be published separately and will include studies of roads, bridges, streams, and beaches.

(3) The Intelligence Plan will refer to "G-2 Estimate of Enemy Situation" which will be published separately. The Plan will include Enemy Order of Battle, enemy capabilities, and forecast of enemy reactions. This summary will be supplemented by weekly publication of changes.

(4) The Intelligence Plan will refer to "Security Directive" which will be published separately for early distribution as a guide for planning and for operations security.

### b. The Engineer Plan will cover the following operations:

(1) Assistance to and coordination with Navy in reduction of underwater obstacles.

(2) Reduction of beach obstacles above high-water mark.

(3) Removal of mines on the beach.

(4) Construction of initial beach roadway.

(5) Reduction of road blocks at beach exits and construction of beach exits necessary to exit vehicles landing during the first tide.

-2-

~~TOP SECRET~~

- (6) Breaching of tank walls or filling tank ditches.
- (7) Removal of mines along CT axis.
- (8) Stream-crossings -- normal combat engineer duties.

c. ESB Plans will include:

- (1) Coordination with combat engineers in duties mentioned in 2b.
- (2) Defense of beach area to include possibility of use to supplement the defense of initial beachhead position.
- (3) Beach AA Plan.

3. Drafts of all plans will be submitted in quadruplicate on 8 x 10 1/2 paper. Overlays will be submitted on 1:50,000 maps.

HUBNER  
Maj Gen

OFFICIAL:

/s/ GIBB  
GIBB  
003

~~CONFIDENTIAL~~

HEADQUARTERS 1ST U.S. INFANTRY DIVISION  
A. P. O. # 1, United States Army

To: Sig Officer  
for recommendation

31 March 1944

MEMO )  
TO : G-3, 1st U.S. Infantry Division.

REVISION  
J-3 sent  
arrived  
11

Request orders be issued for units listed below to arrive in 1st U.S. Infantry Division area on Wednesday April 6, 1944 and report to locations as listed. Purpose of movement - concentration for communications training.

1. a. Communications personnel and equipment that will furnish communications for Engineer Companies and Engineer Battalion Command Posts of the 57th Amphibious Engineer Shore Battalion. This personnel and equipment are probably from the 294th Joint Assault Signal Company.

b. Report and be attached to 16th Infantry Regiment at Beaminster for rations and quarters.

2. a. Communications personnel and equipment that will furnish communications for Engineer Companies and Engineer Battalion Command Posts of the 348th Amphibious Engineer Shore Battalions. This personnel and equipment are probably from the 294th Joint Assault Signal Company.

b. Report and be attached to 18th Infantry Regiment at Puddletown for rations and quarters.

3. a. Communications personnel and equipment that will furnish communications for 5th Engineer Special Brigade Command Post. This personnel and equipment are probably from the 294th Joint Assault Signal Company.

b. Report to Commanding Officer, 1st Signal Company at Blandford. Rations and quarters to be announced later.

CP 140 ROSE  
copy 01

Plus Naval Support Gun Position

George E. Pickett  
GEORGE E. PICKETT  
Lt. Col., Signal Corps,  
Division Signal Officer

12 Jul 44

Hq 1st US Inf Div  
APO #1, U.S. Army  
5 March 1944

By authority of :  
CG, 1st US Inf Div  
5 March 1944  
Initials: \_\_\_\_\_

TROOP LIST  
OF 16 PUGH

*Handwritten notes:*  
J  
W.D. [unclear]  
W.D. [unclear]

<u>NO.</u>	<u>UNIT</u>	<u>PERSONNEL</u>	<u>VEHICLES</u>
1.	16th Inf	3105	193
2.	7th FA Bn	476	88
3.	1st Engr Bn (- Co B & 1 Plat Co C)	392	45
4.	Co A, 1st Med Bn w/1 Plat Co B attached	197	20
5.	Det 1st Sig Co	24	3
6.	Cos A & B, 81st Cml Wpns Bn (Head)	225	32
7.	62d Armd FA Bn		
8.	741st Tank Bn (DD)		
9.	20th Engr Bn (C)		
10.	Air Support Party		
11.	Det 5th ESB	1578	123
12.	197th AAA Bn AW SP	598	102
13.	1 GR Plat	23	4
14.	4 Surg Teams, 3rd Aux Surg Gp	32	
15.	Prov AAA AW Btrys (A,B)	130	
16.	Det Hq & Hq Co, 1st Inf Div	60	8
17.	Det 18th Inf	16	4
18.	Det 32d FA Bn	8	2
19.	Det 5th FA Bn	8	2
20.	Det 1st Sig Co	50	15
21.	Det 165th Sig Photo Co	7	2
<u>Corps Troops:</u>			
22.	Det V Corps Hq & Hq Det	41	1
		<u>4266</u>	<u>340</u>
<b>DIV TNS</b>		<b>6773</b>	<b>828</b>
<b>TOTAL</b>			

**CLASSIFICATION 70**  
**CANCELLED 63**  
BY AUTHORITY OF THE ADJUTANT GENERAL  
Downgrading Committee 12 July 44

OFFICIAL:

*Handwritten initials:*  
GNS  
GJ

**HICKER**  
**MAJ GEN**

12 Jul 44

Hq 1st US Inf Div  
APO #1, U.S. Army  
5 March 1944

~~SECRET~~  
By authority of :  
CG, 1st US Inf Div :  
5 March 1944 :  
Initials: :

TROOP LIST

GT 116 FORCE

<u>NO.</u>	<u>UNIT</u>	<u>PERSONNEL</u>	<u>VEHICLES</u>
1.	116th Inf )		
2.	111th FA Bn )		
3.	121st Engr Bn (C) )		
4.	Co B, 104th Med Bn plus 1 Plat Co D atchd )		
5.	Det 29th Div Hq & Hq Co )		
6.	Det 29th Sig Co )	4000	371 (includes 39 DUKES)
7.	1 Plat, 29th Recon Tr )		
8.	Det, 29th MP Plat )		
9.	Det, 29th MI Co )		
10.	Det, 729th Ord Co (IM) )		
11.	743d Tk Bn (DD)	350	63
12.	112th Engr Bn (C) (- det)	575	45
13.	58th Armd FA Bn	517	70
14.	2 Cos, 81st Cml Bn (Mtd)	225	32
15.	Air Support Party	11	4
16.	6th ESB	1652	106
17.	4 Surg Teams, 3d Aux Surg Gp	32	-
18.	1 Sect _____ OR Plat	6	1
19.	2d Engr Bn	578	29
20.	5th Engr Bn	578	29
21.	Prov AAA AW Btrys	131	-
22.	Det 1st Sig Co	<u>14</u>	<u>3</u>
	TOTAL W/RANGERS	8669	753
	TOTAL W/O RANGERS	7513	696

OFFICIAL:

GTRB  
G-3

HUGHNER  
Maj Gen

~~SECRET~~  
By authority of :  
CG, 1st US Inf Div :  
5 March 1944 :  
Initials: :

Hq 1st US Inf Div  
APO #1, U.S. Army  
5 March 1944

TROOP LIST

DIVISION TROOPS FORCE

<u>NO.</u>	<u>UNIT</u>	<u>PERSONNEL</u>	<u>VEHICLES</u>
1.	1st US Inf Div Hq & Hq Co	190	20
2.	1st MP Plat	73	18
3.	Det, 1st QM Co	70	15
4.	Det, 701st Ord Co (LM)	86	15
5.	Det, DA Hq & Hq Btry	30	8
6.	1st Sig Co (- deta)	104	30
7.	Det, 56th Sig Bn	32	8
<u>Corps Troops:</u>			
8.	V Corps Hq & Hq Det	181	11
9.	Det 56th Sig Bn	58	21
10.	Air Support Party	11	4
11.	British Sig Unit	11	2
12.	Correspondents, Censors & Photographers	10	
13.	3d Armd Gp Hq & Hq Co	101	26
14.	16th AAA Gp Hq & Hq Btry	54	13
15.	991st Engr Trwy Br Co	24	12
16.	✓Sect, Adv Sup Plat, 1st Med Depot Co	33	3
17.	✓Rad Link Det, 980th Sig Ser Co	5	3
18.	✓Army Depot S & I Sect	23	1
19.	✓Army Rad & Wire Repair Sect	22	6
<u>Air Corps:</u>			
20.	1 AI Beacon, etc.	143	43
21.	Det Engr Avn Co, C Bn	50	5
22.	Res Parties of C & D Bns	18	4
23.	Det 165th Sig Photo Co	7	2
24.	✓Army Wire Const Team	33	6
25.	✓16th Bomb Disp Sqd	7	2
DIVISION TROOPS		563	106
TOTAL		1386	278

QUEBNER  
Maj Gen

OFFICIAL:

GIBB  
G-3



By authority of  
CO, 1st US Inf Div  
6 March 1944  
Initials:

Maj 1st US Inf Div  
APO #1, U.S. Army  
6 March 1944

TRUCK LIST

BY 14 FEBRU

<u>NO.</u>	<u>UNIT</u>	<u>PERSONNEL</u>	<u>VEHICLES</u>
1.	18th Inf	3105	193
2.	32d FA Bn	476	88
3.	Co D, 1st Engr Bn	266	16
4.	Co B, 1st Med Bn plus 1 plnt Co B	137	20
5.	Det, 1st Sig Co	8	3
6.	1st Recn Tr	155	48
7.	4 Surg Teams, 3d Aux Surg Co	32	-
8.	5th FA Bn	449	88
9.	Det, 33d FA Bn	8	2
10.	5th ESB	1804	113
11.	749th Tk Bn (M-4)	450	69
12.	413th AA Gun Bn (M)	461	95
13.	1 Bn AA Bar Bln (- 1 Btry)	391	30
14.	Adv Det 26th Inf	40	10
	<b>DIVISION TROOPS</b>	<b>4544</b>	<b>468</b>
	<b>TOTAL</b>	<b>7692</b>	<b>775</b>

PREPARED  
Maj Gen

OFFICIALS

GINS  
8-3

~~SECRET~~  
By authority of :  
HQ, 1st US Inf Div :  
6 March 1944 :  
Initials: :

Hq 1st US Inf Div  
APO #1, U.S. Army  
6 March 1944

TROOP LIST

CT 26 FORCE

<u>NO.</u>	<u>UNIT</u>	<u>PERSONNEL</u>	<u>VEHICLES</u>
1.	26th Inf (- det)	3060	225
2.	33d FA Bn	476	102
3.	Co C, 1st Med Bn	95	14
4.	1 Plat Co C, 1st Engr Bn	42	7
5.	DA Hq & Hq Btry	90	10
6.	Det, 1st Sig Co	<u>18</u>	<u>13</u>
	TOTAL	3781	371

~~SECRET~~  
Maj Gen

OFFICIAL:

GIBB  
0-3

By authority of  
AGC, 1st US Inf Div  
16 March 1944  
Initials:

Hq 1st US Inf Div  
APO #1, U.S. Army  
6 March 1944

FORCE LIST

BRIDGE CHANNEL FORCE

<u>NO.</u>	<u>UNIT</u>	<u>PERSONNEL</u>	<u>VEHICLES</u>
1.	1st OM Co	96	47
2.	701st Ord Co (IM)	34	18
3.	1st Engr Bn (C)	74	37
4.	1st Med Bn (- det)	78	21
5.	16th Inf	90	39
6.	18th Inf	90	39
7.	26th Inf	90	6
8.	Det, 17th FA Chas Bn	22	25
	<b>TOTAL</b>	<b>484</b>	<b>232</b>

PREPARED  
BY  
M.J. GAN

OFFICIAL:

EX-108  
C-3

HEADQUARTERS 1ST U. S. INFANTRY DIVISION  
APO 1, U. S. Army

:  
: By authority of :  
: CG, 1st US Inf Div :  
: 26 May 1944 :  
: Initials: *FWL* :

Ref. No. ZA-323

Copy No. 333

*Am*  
CLASSIFICATION CANCELLED TO:  
26 May 1944  
**CANCELLED**  
BY AUTHORITY OF THE ADJUTANT GENERAL  
DOWNGRADING COMMITTEE *Am*

Memorandum:

To : See Distribution

1. It is the responsibility of sub-force commanders that all units listed on sub-force troop lists are properly briefed. This includes Corps and Army units.
2. Commanding Officer, 1st Reconnaissance Troop, is responsible for briefing all 1st U. S. Infantry Division units in the Bristol Force.
3. Lieutenant Colonel Learnard is responsible for briefing all residuals of the 1st U. S. Infantry Division and attached.
4. Necessary maps and operational data may be obtained from G-2 and G-3, this headquarters.
5. The following schedules and instructions involving the mounting and briefing of all units have been issued by higher headquarters. Instructions affecting time and method of briefing are contained in Memorandum, Headquarters 1st U. S. Infantry Division, dated 10 May 1944, subject: "Map distribution and Briefing Procedure".

a. Maps issued to Marshalling Camps:

Force "O"	Y - 7
Bristol Force	Y - 2

b. Briefing authorized to commence: Y - 6

c. Marshalling begins:

Force "O"	Y - 4
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d. Loading begins:

Force "O"	Y - 1
Bristol Force	Y - 4

e. Loading completed:

Force "O" and Bristol Channel	Noon Y + 2
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6. Ships and craft will be loaded as follows:

a. Force "O"

*30 May 44*  
*7*

Area	Date	Ship or Craft								
		APA	XAP	LSI(L)	LSI(H)	LSI(S)	LST	LSD	LCI(L)	LCT
PORTLAND	Y - 1	:	:	:	:	:	8	:	:	2
and	Y	2	:	2	3	3	10	1	:	68
	Y / 1	2	3	:	:	:	6	:	14	61
WEYMOUTH	Y / 2	:	:	:	:	:	:	:	7	:
PLYMOUTH	:	:	:	:	:	:	:	:	:	:
East	Y / 1	:	:	:	:	:	:	:	:	7 a
PLYMOUTH	:	:	:	:	:	:	:	:	:	:
West	Y / 1	:	:	:	:	:	:	:	12 b	:
TORCROSS	Y / 1	:	:	:	:	:	:	:	:	16 c

a - Army freight

b - CT 115

c - DD tanks

## b. Bristol Channel Force

Day	NEWPORT	CARDIFF	BARRY
	South Dock	Queens Dock	No. 2 Docks
Y	:	4 MT Ships	:
	:	landing	:
	:	D / 1	:
Y / 1	12 MT Ships	:	1 MT Ship
	landing D/1	:	4 MT Ships
	:	landing D/1	landing D/1

Note: 4 Personnel Ships arriving on D-1 load at NEWPORT (2) and CARDIFF (2).

7. Units loading out of the Bristol Channel will be briefed after boarding MT Ships, MT Coasters and Personnel Ships. The briefing of units aboard Personnel Ships will be done by unit commanders using ship's mess halls, recreation rooms, etc., on a schedule to be arranged by the senior officer aboard. In the case of complete units boarding MT Ships or Coasters, the same procedure will govern. Where only a portion of a unit is scheduled to sail aboard an MT Ship or Coaster, the senior officer or non-commissioned officer will be briefed by Captain William L. Blake, Commanding Officer, 1st Reconnaissance Troop, at the last possible moment with the necessary information to enable the detachment to accomplish its mission after landing. Maps will be distributed to units in camps as previously provided for. Unit commanders will receive the maps and take them aboard ship where they will be distributed. In the event that distribution of maps is to be made to a detachment boarding an MT Ship or Coaster, these maps will be distributed by Captain Blake to the detachment commander at the time he is briefed.

8. a. The following instructions apply in the event of any postponement of D day which may be:

- (1) From day to day over a period of three (3) days.
- (2) For fourteen (14) days.
- (3) For twenty-eight (28) days.
- (4) For fourteen (14) or twenty-eight (28) days, again followed by a day to day postponement as in a. above.

b. In the event of a day to day postponement, the following procedure will govern:

(1) Troops will remain embarked on LSI, APA, and LST. Troops in LCI (L) and LCT still secured alongside may be disembarked, and distributed into adjacent accommodations. Troops in LCI (L) not secured alongside may also be disembarked if conditions permit. Those in LCT not alongside will not be disembarked.

(2) In the event it is impossible to disembark all troops from craft lying alongside quays, priority will be given to those who have been embarked the longest.

(3) Before disembarkation, all officers and enlisted men will note carefully the location and number of their craft.

(4) All troops disembarked will remain in craft loads and no interchange of personnel will take place.

(5) Throughout the period troops are ashore the officer in charge of troops of each craft will be responsible for the discipline of and security arrangements for his own craft load. No contact with unbriefed troops (other than sealed static staffs) or civilians will be permitted.

(6) No vehicles will be disembarked.

c. In the event of a fourteen (14) day postponement, the following procedure will govern:

(1) All troops, less essential vehicle maintenance parties and guards, will be disembarked.

(2) No vehicles will be disembarked.

(3) Troops will return to marshalling camps but will remain in craft loads.

(4) No contact with unbriefed troops (other than sealed static staffs) or civilians will be permitted. On arrival in marshalling camps troops will remain sealed.

d. In the event of a twenty-eight (28) day postponement the same procedure will govern as for a fourteen (14) day postponement except that troops may be assembled into units on orders of the Corps Commander.

#### 9. Identification of aircraft briefing:

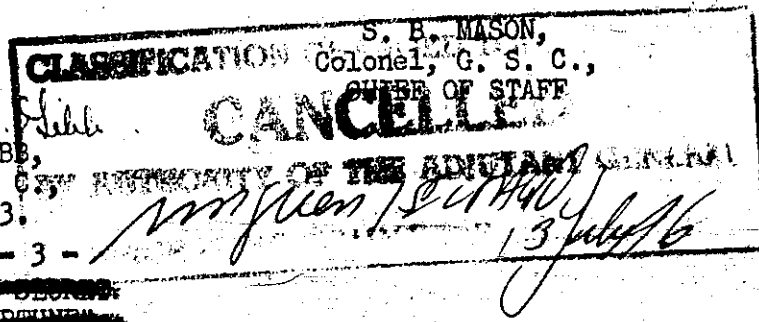
Instructions contained in Operations Memorandum Number 27, Headquarters 1st U.S. Army, dated 22 May 1944, titled, "Aircraft Recognition - Distinctive Marking of Aircraft", will be disseminated to all units during briefing.

By command of Major General HUEBNER:

OFFICIAL:

*Frederick W. Gibe*  
FREDERICK W. GIBB,  
Lt. Col., G. S. C.  
A. C. of S., G-3.

DISTRIBUTION:  
"Special"



Copy No. 019

HEADQUARTERS 1ST U.S. INFANTRY DIVISION  
APO #1 U. S. Army

: TO :  
: Authority CG :  
: 1st US Inf Div :  
: 13 May 1944 :  
: Initials: *WJ* :

Ref No. ZA-232

SUBJECT: Administrative Vehicles in Marshalling Camp.

TO : See Distribution

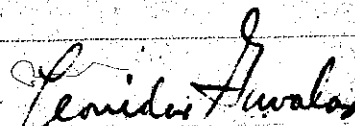
1. Effective 18 May 1944, Par 5, Change #1, to Annex #4, to FO #35, is rescinded and the following substituted therefor:
  2. a. 1/4 ton trucks will be supplied to marshalling camps by units designated in inclosure #1 for the purpose of establishing motor pools within each camp for administrative use.
    - b. Vehicles and drivers will be withdrawn from residues and will report to the Static Camp Commander of the respective camp as listed in inclosure #1 by 0900 hours 18 May 1944.
    - c. Vehicles, if loaded, will be unloaded and the loads retained with and guarded by residue to be reloaded when vehicles are returned to residual camps.
    - d. All residual vehicles, other than those specified in inclosure #1, will be returned to unit residue by 1200 hours 18 May 1944.
    - e. Personnel will be attached to static camp organization for quarters and rations.
    - f. Operational control of vehicles will remain with motor pool commander, under supervision of the senior Tactical Commander in each camp.
  3. a. One officer and three (3) NCO's from residual personnel will be detailed by units, as shown on inclosure #1, to report to the Static Camp Commander of the respective camp as listed.
    - b. Each officer so designated will be responsible for the following:
      - (1) Organization of motor pool within the respective camp area for dispatching of vehicles to units within the camp on a twenty-four hour basis.
      - (2) Supervision of first echelon maintenance by drivers attached to the pool.
      - (3) Return of vehicles to the respective residual camps upon final release by the senior Tactical Commander in each camp.

**CANCELLED**  
 - 1 -  
 BY AUTHORITY OF THE ADJUTANT GENERAL  
 DOWNLOADING COMMITTEE

4. The senior Tactical Commander in each camp is responsible for the maintenance of security and will insure that drivers are segregated from briefed troops except when engaged in driving, and that all movements outside the camp are made with his approval on passes issued by the Static Camp Commander.

5. Officers in charge of residues are responsible for final inspection, reloading, waterproofing etc., of vehicles upon their return to respective residual camps.

By command of Major General HUEBNER:



LEONIDAS GAVAIAS;  
Lt. Col., A.G.D.,  
Adjutant General.

Incl No. 1 - Assignment of 1/4 ton trucks and personnel  
to Marshalling Area Camps for Administration.

DISTRIBUTION  
Same as FO #35



HEADQUARTERS 1ST U.S. INFANTRY DIVISION  
APO #1 U.S. Army

Authority CG,  
1st US Inf Div  
13 May 1944  
Initials

ASSIGNMENT OF 1/4 TON TRUCKS AND PERSONNEL  
TO MARSHALLING AREA CAMPS FOR ADMINISTRATION

UNIT	CAMPS													Div Hq Bld
	D-1	D-2	D-3	D-4	D-5	D-6	D-7	D-8	D-9	D-10	D-11	D-12	D-14	
16th Inf	1			7				7	**14	2				
18th Inf				**8	1	8						7	7	
116th Inf	**7		10	12		7		2	**14					
58th Armd FABn									7	**7				
62nd Armd FABn					**7									
5th FA Bn					3									
7th FA Bn				2										
741st Tk Bn								2		3			**6	
743rd Tk Bn												**8	3	
745th Tk Bn												5	3	
81st Cml Bn		**9			11	10	**12							**38
1st Med Bn									2					
3rd Armd Gp Hq				**				**2						
Hq Div Arty										2				
20th Engr Bn										2				
112th Engr Bn		**3												
TOTAL	8	9	13	21	19	28	20	13	23	21	9	20	19	38

\*\* Indicates unit who will detail 1 Officer and 3 NCO's to camp.

CLASSIFICATION CHANGED TO:  
**CANCELLED**  
BY AUTHORITY OF THE ADJUTANT GENERAL  
DOWNLOADING COMPLETE  
3 July 46

Inclosure No

TOP SECRET  
"NEPTUNE"

BIGOT

Hq 1st US Inf Div  
APO #1, U.S. Army  
23 May 1944

:  
: By authority of :  
: CG, 1st US Inf Div :  
: 23 May 1944 :  
: Initials: *F. H. G.* :

Copy No. 56

Appendix 1)

TO ANNEX 8)

TO FO 35)

Firing on Hostile Aircraft  
(For other than AA Troops)

1. Rules for engagement of aircraft:

a. Personnel manning antiaircraft machine guns will open fire on aircraft:

- (1) When an aircraft is attacking them with bombs or gun fire, or
- (2) When enemy markings on an aircraft are plainly visible, or
- (3) When identification of an aircraft as hostile has been received from an Air Force or Antiaircraft Artillery source, or
- (4) When unit commander orders fire to be opened based on recognition of an aircraft as hostile by a qualified observer.

b. The firing of pistols, carbines, submachine guns, or other similar short range weapons, at aircraft is prohibited under all conditions.

c. Antiaircraft machine guns will not engage aircraft:

- (1) When aircraft is not visible to the gunner.
- (2) Merely because another antiaircraft weapon is seen to open fire. Each unit is responsible for opening its own fire.

**CLASSIFICATION**  
**CANCELLED**  
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046-1

HEADQUARTERS 1ST US INFANTRY DIVISION  
A. P. O. #1, U. S. Army

By authority of  
: Cg, 1st US Inf Div  
: 10 April 1944  
: Initials: *LB*

Ref No  
ZA-88

Copy No. 1

10 April 1944

*AS*  
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SUBJECT: Orders

TO : Commanding Officer, 116th Combat Team  
Commanding General, Engineer Provisional Brigade Group

Top Secret letter, this headquarters, same subject as above, dated 5 April 1944, reference Joint Assault Signal Company personnel and 116th Infantry communications personnel reporting to 1st Infantry Division 14 April for training, is hereby rescinded.

By command of Major General HUEBNER:

*Leonidas Gavalas*

LEONIDAS GAVALAS  
Lt. Col., A.G.D.  
Adjutant General

DISTRIBUTION:

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3 - 4 CO, 116th CT  
5 - 6 File

CLASSIFICATION  
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*W. H. Smith, Capt A.G.D.*  
DOWNGRADING COMMITTEE 13 July 46

20 APR

HQ PROV ESB GP

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Ref No. ZA-71

AG370

HEADQUARTERS 1ST U.S. INFANTRY DIVISION  
APO 1, U.S. Army

TOP 412  
~~SECRET~~  
Auth: C. G. 1st Div.  
Date: Y-APR-14  
Initials: LR

5 April 1944

SUBJECT: Orders.

TO : Commanding Officer, 116th Combat Team.  
Commanding General, Engineer Provisional Brigade Group.

1. Joint Assault Signal Company communications personnel and equipment furnishing communications for the 149th Amphibious Engineer Shore Battalion will report to Commanding Officer, 116th Infantry Regiment prior to 14 April 1944. Necessary orders will be issued by Provisional Engineer Brigade Group Headquarters.

2. On 14 April 1944 the following personnel will report to Commanding Officer, 1st Signal Company, Bryanstone Camp, Blandford:

Engineer detail (par 1 above)  
116th Infantry Regiment Headquarters communications platoon.  
116th Infantry Battalions communications sections.

3. Above details will bring all communications equipment planned for use in operations "Neptune".

4. Quarters and rations will be furnished by 1st US Infantry Division, beginning with supper 14 April 1944. 116th Infantry Regiment will furnish necessary kitchen personnel and equipment for all troops listed in par 2 above.

5. Purpose of concentration is to permit joint communications training.

6. Personnel and equipment will return to parent units by night of 20 April 1944.

By command of Major General HUEBNER:

*Leonidas Gavalas*  
LEONIDAS GAVALAS  
Lt. Col., A.G.D.  
Adjutant General

DISTRIBUTION:

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5 April 44  
#11 Copy #1

File 95

~~TOP SECRET-RIGOT~~  
"NEPTUNE"

Hq 1st US Inf Div  
APO 1, US Army  
25 March 1944

*Handwritten initials/signature*

~~TOP SECRET~~  
: Authority: CG:  
: 1st US Inf Div:  
: 25 March 1944:  
: Initials: *AVE*:

Copy No. **091**

TACTICAL STUDY OF TERRAIN

- Maps: GSGS 4250 (1/50,000) - Sheets 6E/5, 6E/6, 7E/5, 5F/2, 6F/1, 6F/2, 7F/1.  
 GSGS 4249 (1/100,000) - Sheets 6E, 6F, 7F.  
 GSGS 2738 (1/250,000) - Sheets 3A & 8.  
 GSGS 4347 (1/25,000) - Sheets 34/18 NW, NE, SW, SE.  
 34/16 NW, NE, SW, SE.  
 37/16 NW, SW.  
 37/18 SW.

**1. PURPOSE AND OTHER LIMITING CONSIDERATIONS.**

The purpose of this study is to give a brief general description of the area of the NEPTUNE Operation, and detailed analysis of Beach 46 and the area behind it from the assault viewpoint. The area considered in detail includes the probable zone of action of V Corps through D / 9.

**2. GENERAL TOPOGRAPHY OF THE CHERBOURG PENINSULA.**

a. The Cherbourg Peninsula may be roughly divided into three geographical regions: the Cotentin to the North, the Bessin to the East and the Bocage to the South.

(1) Cotentin. This is the area north of the Taute River, a well-marked geographical region forming the seaward projection of the Peninsula. Its irregular coastline has numerous inlets, bays and high cliffs. The highest elevation is approximately 500 feet, and there are frequent precipitous valleys. The southeast section of Cotentin consists of low marshy plain. This is the area of the VII Corps assault.

(2) The Bessin. This lies to the east of the Taute River and extends to Bayeux and includes the 1st Div. assault sector. The western portion of the area is low and marshy, but towards the east rolling hills predominate. Although the country is generally open, between St. Lo and Bayeux numerous wooded areas exist. The country is extensively cultivated and consists principally of rectangular pastures and orchards bordered by hedges.

(3) The Bocage. This lies south of Cotentin and Bessin and is rough. The principal ridge line runs generally east from Coutances. This high ground is cut by the Sienne and Vire Rivers into deep gorges in their upper courses. The

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*13 July 46*  
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*8 April 44*  
**# 5**

low-lying hills in the northern part of this area have less abrupt slopes and are extensively cultivated. The higher country to the south has numerous rock outcroppings and is principally pasture lands. The 1st Div. should enter this area about D / 12.

### 3. TOPOGRAPHY OF ASSAULT AREA.

a. The area back of Beach 46 is heavily cultivated and has only a fair road net. The ground rises sharply at the beach, climbs inland to the higher ground near Foret-de-Cerisy (400 ft) with higher ground beyond (500-600 ft). Trees exist in scattered areas and many of them reach 30 feet in height. They are usually too small to be of value for construction purposes. Hedges and earth fences abound and are similar to those in southern England. The soil is generally marl, over broken limestone, with sand near the beaches and loam elsewhere. Certain areas are underlain with clay, are poorly drained and in wet weather are impassable.

b. Drainage System. Four streams compose the major elements of the drainage system in this area. Listed in the order of their importance to assault operations, they are: the Aure, the Vire, the Drome and the small streams that combine to form the Taute, south of Carentan. (A canal connects the Vire with the Taute between 409817 and 501755). The drainage is in general north toward the sea, with the notable exception of the Aure which flows west across the entire area at a distance of from two to five miles from the coast. All these streams rise in the interior uplands and plateaus where their courses are characterized by moderate to steep-sided valleys. The rate of flow will not exceed three feet per second, but becomes much slower in their lower reaches. The lower reaches of the Aure, the Vire and the Taute flow through areas that vary from flat to slightly undulating. Here the streams are sluggish and meandering and are bordered by canals and drainage ditches. Much of these areas are now inundated, or subject to inundation. Generally speaking, all streams are fordable except the Vire and the Aure below Trevieres. From Isigny to Trevieres the Aure Valley has been flooded, forming a barrier roughly 2,000 yards wide. An important feature of the River Aure is the fact that it flows through a natural tunnel between 741849 and 746841. The ground above this tunnel is wet and may be marshy. The tunnel is probably less than 10 feet below the ground surface and may collapse under the passage of heavy vehicles. For details on streams, see Appendix "A" and "B".

c. Ridge System. There are two ridges running east-west across the area between River Aure and the coast. These ridges join in the vicinity of Vierville (647912), Formigny (648867) and continue as one ridge to Port-en-Bessin. Elevations vary from 270 ft in the vicinity of Colleville (688881), to 100 ft in the western areas. Predominating heights along the coastal ridge vary from 110 ft around St. Pierre-Du-Mont (592931) to nearly 200 ft northeast of Colleville. The valley separating the two ridges in

the westerly half of the area under consideration is fairly open. A flooded area exists near Grandcamp. (See Appendix "A"). South of the River Aure are found a series of finger-like ridges running generally north-south and extending south to a predominating hill mass outside the area under study. Elevations south of the Aure vary from about 100 ft to 150 ft in the west, to 200 ft in the east. The dominant heights in the area are in the Forêt-de-Cerisy where elevations reach to nearly 400 ft.

d. Communications:

(1) General.

(a) The main road network in the Cherbourg Peninsula is not as dense as in the industrial northeast. The 1st Div. sector is contained in one of the rich agricultural areas of France, where there is very little heavy industry that would require an extensive network of good roads. From this aspect, the area may well be compared with southwest England. The principal activities in peacetime were cattle and horse raising, fruit growing and cereal production. The minor road system developed in accordance with the local rather than the national needs, and the main roads were more important from a touring than a commercial point of view.

(b) The two main highways which cross the sector are the Bayeux-Isigny and Bayeux-St. Lo roads. These roads are of standard tarmac construction and vary in width from 18 to 24 ft. It is reasonable to believe that they have received maintenance during the war and should be found in good condition, except where damaged by shell-fire or demolitions by the enemy. These roads will carry two-way traffic. The secondary roads which traverse these agricultural areas are narrow and are usually flanked by hedges or embanked fields. Many of them are sunken and unsurfaced and must be considered one-way. Deployment from roads will be difficult.

(2) Isigny-Bayeux -- 26 miles.

(a) From Isigny the road runs through the marshy meadows of the Aure Valley, and then climbs the plateau and runs straight to Bayeux through a well-watered and wooded countryside, consisting mostly of pasture land bordered by large trees. The road does not pass through any large villages or towns and presents no difficulty for M/T.

(b) Deployment. It is not considered possible for M/T to deploy across the marshy meadows in the valleys of Rivers Vire and Aure. If M/T were to deploy on to the pasture bordering the road, movement would be restricted by hedges and rows of trees.

(c) Cover. This stretch of road is visible from the air. There is cover for infantry and well-dispersed M/T in the shade of hedges and rows of trees bordering the fields on each side of the road.

(3) Port-en-Bessin - Grandcamp-les-Bains (coastal road) - 14 miles.

(a) This stretch of road runs along the coast, usually about a mile inland. The road is narrow and winding, and a considerable amount of traffic control or signposting would be necessary if this road were to be much used. The road runs through gently undulating pasture and orchard country, the fields and orchards often being separated by hedges or lines of trees.

(b) Deployment: By M/T on either side of the road is likely to present considerable difficulty owing to the general prevalence of hedges around the fields. These hedges are fairly old and probably sufficiently resistant to prove an obstacle to M/T. In other places the fields are separated by closely planted lines of trees. Furthermore, there are many orchards in this area, and the closely planted low trees would considerably impede M/T.

(c) Cover. This stretch of road is visible from the air, but there is ample cover for infantry in the shades of hedges and trees around the fields. There would also be cover for well-dispersed M/T in and around the orchards. At no place along this stretch of road are there any large woods offering harboring facilities for vehicles.

(4) Grandcamp-les-Bains - Isigny -- 6 miles.

(a) A fairly straight and level road through pasture and orchard country. At Osmanville this road joins the main road from Caen to Cherbourg, which it follows for about a mile to Isigny.

(b) Deployment. As on the previous stretch, deployment is considered to be probably difficult across the cultivated country through which this road runs. At the entry to Isigny the road crosses the marshy valley of the River Aure and the marshy land on both sides of the road is considered impassable for M/T.

(c) Cover. This stretch of road is visible from the air in winter, but in summer and in early morning and evening the hedges and trees beside the road cast long shadows which appear to give good cover on the road. There is ample cover for infantry in the shade of hedges and trees around the fields. The orchard country offers good cover for well-dispersed M/T. At no place along this stretch of road are there any large woods offering harboring facilities for vehicles.



(5) Method of Construction.

(a) Port-en-Bessin - Vierville-sur-Mer - Grandcamp-les-Bains - Isigny (coastal road) about 15 ft wide, tarmac surface: In many places this road has a pronounced camber, which is particularly noticeable between Port-en-Bessin and Isigny. It is reported that efforts have been made to reduce the effects of the camber but without much success.

(b) This road can possibly be used for two-way traffic but with some difficulty because of the camber which tends towards using the crown of the road, and on account of the many narrow villages through which it passes. This road was reported to be in good condition and well maintained in 1940.

(c) Defiles. The only defiles on this road are those formed by the villages where the road is built up on both sides; these are frequently very winding. These villages are likely to become difficult bottlenecks on a road already difficult because of its narrowness and sinuosity. Much signposting and traffic control would be necessary through the villages.

(6) Bayeux-St. Lo -- 22 miles.

(a) A gently undulating road with long straight stretches running through rolling pasture country and crossing the Forêt de Cerisy, 10 miles southwest of Bayeux. The road leaves Bayeux as Rue St. Loup. It does not run through any villages of importance and presents no difficulties for M/T. It enters St. Lo by Rue de Bayeux and Place Ste. Croix. In normal times one-way traffic is enforced in St. Lo, which is a busy road junction and traffic control would be necessary here.

(b) Deployment: It is considered that M/T would have difficulty in deploying across the closely hedged fields along the road. Through the Forêt de Cerisy it is reported that there is a grass verge on each side of the road on to which vehicles can draw, but vehicles cannot drive between the closely planted trees in the forest.

(c) Cover. This stretch of road is reported as visible from the air. There is, however, cover for infantry and well-dispersed M/T in the shade of hedges and rows of trees bordering the fields along the road. Forêt de Cerisy covers an area of approximately 10 square miles and consists mostly of beech trees, with some oak. It is reported that the trees are very closely planted and that M/T could probably not drive between them. The forest is, however, intersected by rough two-way roads and grass drives suitable for M/T.

(7) Bridges throughout the area are generally of masonry arch construction. For details of roads and bridges see Appendix "B".

(8) Railroads.

A double-track railroad connects Carentan, Bayeux and St. Lo, with a single-track extension to Isigny. The double-track line connecting Carentan and Bayeux is a part of the main line from Cherbourg to Paris. The narrow gauge railroad shown on old maps running Forêt de Cerisy-Morley - Trevieres - Vicerville-sur-Mer - Grandcamp-les-Bains - Isigny is not now operational and much of the track has been removed.

(9) Beach Exits: - see Paragraph 4 c.

(10) For further details, see Appendix "A".

e. Areas Suitable for Mechanized Operations.

(1) Mecz ops may be restricted to relatively small areas due to extensive marshes and scattered woods.

(2) The greatest threat of enemy mecz atk is from the Bayeux area, where the ground is firm, the streams shallow and woods are more open.

f. Airdromes. There are about 12 known airdromes on the Cherbourg Peninsula but none within the area under consideration, the closest being about 8 miles ENE of Bayeux.

g. Water Supply. Sources are ample but provision must be made for disinfecting because practically all surface water is polluted.

h. Ground Swell and Tides. The coast in the division area is not entirely exposed to the Atlantic swell, being protected by the tip of the Cherbourg Peninsula. The tidal range runs generally between 19 to 23 ft. This section of the coast (Seine Bay) is open to all winds from the north and northeast which occur in gale force approximately 30 days a year. Approaches to beaches are dangerous during the period of north and northeast winds. Landing is favored by winds from the west and southwest. Prevailing winds are from the southwest. High tide is remarkable for its length of stand, since it has a duration of 75 to 105 minutes with a stage variation of less than one foot. Tidal currents run from east to west and do not exceed 3 knots.

i. Climate.

(1) General. The climate of the region is notably moderate for this latitude, but is characterized by a generally humid atmosphere occasioned not by excessive quantities of rainfall but

by the unusual frequency of fine rain, mists, and fogs, especially in winter.

(2) Rain. There is no marked rainy season but maximum precipitation occurs from October to December. The heaviest rainfall is on the Cotentin Peninsula which receives about 47 inches a year. The area of least rainfall is the triangle Bayeux-Alencon-Lisieux, which averages 24 to 31 inches a year. A relatively small portion of the winter rain is evaporated and the ground is likely to be soft after prolonged rainy periods, especially in the low-lying areas.

(3) Fog. Fogs are common in the area particularly in autumn and winter. Sea fog may occur in all seasons. Cherbourg averages 14 days of fog a year.

(4) Low Clouds. The frequency of low clouds inland increases with the height of the ground. Seventy-five percent of the time, cloud level is 4,000 ft, or lower.

(5) Temperature. The average temperature in summer is 59° to 64° Fahrenheit. Over a ten year period the maximum temperature for June was 80°, the minimum 46° Fahrenheit.

j. Cities and Towns. Normandy being essentially an agricultural region, there are no large cities in the area. See Appendix "C" for plans of principal towns.

k. Population.

	<u>District</u>	<u>Town</u>
Trevieres	7,204	867
Grandcamp	-	1,598
Isigny	12,188	2,847
Bayeux	54,000 (pre-war)	6,668 (pre-war)
Lison	-	569
Balleroy	9,815	836
St. Lo	15,123	11,000

l. Forests. There are three forests in the division zone: the Callette, the Molay and the Cerisy, the latter being the largest, covering an area approximately 10 square miles. These forests are generally of beech, oak and elm.

4. MILITARY ASPECTS OF THE TERRAIN.

a. Sea Approaches. Sea approaches are clear and contain no obstacles to navigation. There are exposed anchorages in depths of 36 ft, 3/4 mile offshore from any point along the coast. High ground at Grandcamp-les-Bains and Ste. Honorine-des-Pertes commands this anchorage.

b. Assault Beach. Beach 46 runs from 699894 to 638930. The gradient from the back of the beach to the high water level varies between  $1/10$  -  $1/20$ . From the high water line to the low water line the gradient varies between  $1/55$  and  $1/70$ ; it generally flattens out seaward from the low water mark. Mean level of the water is 13 ft above Admiralty Chart Datum, with a neap/rise of 19 ft and springs 23 ft. The beach is of firm sand below HWL and of coarse shingle above this line to the back of the beach. Beach roadway expedients will be necessary above HWL. The beach is 7,900 yards long. Runnels exits sporadically along this beach and though they are never more than  $2\frac{1}{2}$  ft deep they will cause difficulty at certain stages of the tide at various points on the beach. Landing of LCT and smaller craft can begin 5 hours before HW and continue to about 5 hours after HW. LST must be dried out for unloading, as gradients will not permit the craft to approach the shore close enough for vehicular wading. Tidal streams are a maximum of 3 knots at springs and run east to west. A series of low pile-type groynes are placed along the sea wall between Vierville-sur-Mer and Les Moulin (649916-665905). The distance from the back of the beach to HW is not great, averaging 25 yards. The eastern portion of beach is backed by a low grassy bank 4 to 6 ft high, slope 1:4 (696894 and 673902). The remaining portion of the beach has a rough stone seawall 6 to 12 ft high, slope 1:1, back of which is a 10 ft promenade road (673902 and 648917). At the western end of Beach 46 there are cliffs 120 ft high, slope 1:1 to 1:2 (648917 and 637930). It is possible that at HW springs with an onshore wind, the seawall may be awash. The cliffs between Vierville and Ponte de la Percee are not scaleable without apparatus; thus, the portion of the beach backed by these is not useful and the effective length of the beach is reduced to 5,000 yards. Since the beach is slightly concave, the heights on either end command its entire length, and considerable sections are subject to observed fire from high ground immediately to the rear.

c. Beach Exits. Initially, five exits can be made off the beach; these have been designated as D1, D3, E1, E3 and F1, and are so indicated on Appendix "A". They are all up short narrow valleys and run from 648917 to Vierville-sur-Mer (647912), 665906 to St. Laurent-sur-Mer (664897), 677901 to near St. Laurent-sur-Mer (671896), 688896 to Colleville-sur-Mer (687882) and from 697893 to Cabourg (694884) respectively. Each of the five principal exits is discussed separately below. In general, although the beach is narrow at HW, a narrow bench runs parallel to the beach and between it and the slopes that front on the sea. This bench will aid in lateral traffic between beach roadways and exits.

(1) Exit D1. At 649918 a triangular groyne has, under the effect of the westerly tidal currents, piled sand along the seawall to its west until the effective height of this wall is reduced to not over four feet. Hence from the west of this groyne an easy approach is possible to the promenade road. From this road a 15 ft tarmac road runs to Vierville, through a narrow valley that will not permit deployment.

(2) Exit D3. By ramping over the low seawall near the valley's mouth, access is had to a small net of roads which lead to a 15 ft tarmac road that runs to St. Laurent. The village of Les Moulins, at the foot of the exit, constricts traffic to a track that may be full of rubble.

(3) Exit E1. By building about 100 yards of roadway to the road that parallels the beach, access can be had to a rough 8-10 ft gravel road that runs up on the west side of a narrow valley, across an open field into the St. Laurent road net. Except for some 200 yards on the road, as it climbs over the valley rim, wheeled vehicles can negotiate the exit off the road at will.

(4) Exit E3. A 10 ft tarmac road runs from back of the beach to Colleville. This exit is narrow and winding, but is adequate. About 100 yards of roadway will be necessary over the dune sand between the beach and the road. Wheeled vehicles will be restricted to the road; tracked vehicles will be able only to deploy between extensive shubbery along the road.

(5) Exit F1. At 697893 sandy track - not more than 6 ft wide - leads from beach over rising ground at 698891; then it joins rough road 8 ft wide at 698887 leading to Colleville. Track would need to be made good over 500 yards before carrying anything other than light M/T in wet weather.

(6) Other Exits:

(a) A trail which runs up from 678900 to 682895.

(b) 693895. Track, little more than a footpath, leads from beach over meadows and scrub on rising ground to 694891 where it joins the same 8 foot wide road to Colleville. Track would need to be made good over 500 yards before carrying anything other than light M/T in wet weather.

(c) 692895. Sandy track, not more than 6 ft wide, leads from beach over level ground for 300 yards to 689894 where it joins 10 - 12 ft metalled road leading inland to Colleville.

(d) Anywhere between 678900 and beginning of seawall at 673902, over 50 yards sandy scrub to track 6 - 8 ft wide leading west along coast. This track becomes a metalled road 10 ft wide at 673902.

d. Avenues of Approach - (see Paragraph 3 d.).

(1) Approach from the coast inland is difficult throughout the area and particularly in the westerly portions. Here the inundated areas and marshlands, together with numerous drainage ditches and small streams, will confine all movement to the roads. Enemy demolitions in the form of road craters and demolished bridges,

augmented by well-placed antitank mines and road blocks will make movement slow and laborious. In the easterly half of the area conditions are not so difficult although cross-country movement will not be easy.

(2) Even the principal roads must be considered one-way in most cases because of numerous bottlenecks, usually in the form of narrow bridges. Inasmuch as the principal roads are those connecting Cherbourg with the interior, we will find our laterals better than our axials. Hence, many axial roads will be "dead-ends" until they are improved or intersect the main roads.

(3) Gradients, in general, are not excessive but curves are numerous and frequently sharp.

(4) Communications will not improve appreciably until St. Lo has been taken.

e. Obstacles. The most important obstacles in the area are the inundated regions near Grandcamp, in the lower Aure Valley, along the River Vire and the River Taute. These areas are flooded by fresh water held back by weirs (dam) or "control stations" located at suitable points along the streams. The Grandcamp and the lower Aure areas are now permanently flooded and other areas could be inundated. (For details, see Appendix "A"). The soil underlying these inundated areas is composed of soft clay and some saturated peat and therefore has tendency to retain water. The depth of the water varies from six inches to about three feet. If the weirs (dam) or "control points" were opened it would require about 10 days to six weeks for the water to subside and the ground would probably never dry out completely.

(1) Roads running through the inundated areas are either completely under water or are so saturated as to be useless, with a few possible exceptions.

(2) Infantry can cross most of the inundated areas only with great difficulty. Vehicles cannot cross.

(3) Other obstacles in the area are in the form of narrow roads, sometimes sunken, and almost always flanked by thick earth fences, hedges or embanked fields.

(4) Scattered woods, increasing in density to the south, will add to the difficulty of cross-country movement.

(5) With exceptions already noted, streams are fordable by infantry.

f. Observation. Observation, in general, favors the defender throughout the area under study. Observation, however, will be severely limited throughout the area behind the beaches as the

elevations are not high and the numerous orchards and tree-lined fields will tend to conceal activity from most ground observation except within the immediate vicinity of the observer. Certain observation vantage points for the attacker to secure include:

(1) The high ground immediately along the coast. Observation from cliffs in the vicinity of St. Pierre (5993) and St. Honorine-des-Pertes (7288) enables the defender to overlook all operations that may take place on Beach 46 and the water before it. The high ground behind Grandcamp (5593) enables him to observe the entrance to the River Vire. Seizure of these areas and the two east-west ridges between the coast and the River Aure places the attacker in position to overlook the valley of the Aure.

(2) The most favorable observation from the attacker's standpoint can be found on Mt. Cauvin (765853) and on the high ground to the north of Trevieres (645853). These two vantage points if held by the attacking forces, give good observation of the main routes of approach which must be used by the defending forces when they launch their counter-offensives.

(3) Limited observation of the Aure Valley south of Grandcamp can be obtained from the ridge in the vicinity of Longueville (605876) and the high ground east of Osmanville at 550880 may give observation on the town of Isigny.

(4) The high ground lying in the triangle formed by the Rivers Aure, Tortonne and Drome. This offers good vantage point and should be secured as early as possible to deny enemy observation close to the beachhead.

(5) The high ground in the general areas: Foret de Corisy, Le Soultaire (5765) and La Luzerne (5266).

(6) The high ground south of Isigny. This gives fair observation of the Carentan Lowlands.

g. Fields of Fire. Fields of fire for the attacker are poor in the early stages of the advance for weapons of all types. After crossing the Aure and moving into the north-south valleys the fields of fire continue to be limited. Small arms and machine guns will be limited to short ranges. The low areas between the Rivers Vire and Taute offer excellent fields of fire for all weapons.

h. Cover and Concealment.

(1) On the Beach. The only cover or concealment in the area is the limited amount provided by the seawall, the groyne and the cliffs. There is no protection from observation from the air.

(2) Between the Beach and the River Aure. Cover, as well as protection from ground observation, is provided to a very limited degree by reverse slopes of the ridges and in the valley between them (south of Grandcamp). There is limited protection from air observation as the scattered trees here are neither large enough or dense enough to provide good protection.

(3) South of the River Aure. Cover and concealment are good in this region.

(4) Between the Rivers Vire and Taute. The north half of this region offers no cover and practically no concealment. In the south half both cover and concealment are considerably better.

i. Areas Suitable for Landing of Airborne Troops. The flat, open ground between Isigny and Carentan and the valley south of Grandcamp are suitable for landing gliders and paratroops. The remainder of the area is generally unsuitable due either to wooded areas, drainage ditches, streams or inundated areas.

j. Areas Suitable for Mechanized Operations. See Paragraph 3e.

k. Possible Enemy Defensive Lines. After his retirement from the beach area and the high ground immediately behind it, the enemy will find suitable defensive positions along any of the following lines:

(1) South of the River Aure.

(2) Along the high ground between Bayeux and St. Lo.

(3) Along the high ground between St. Lo and Coutances (outside the area under consideration).

## 5. CRITICAL TERRAIN FEATURES.

a. The cliffs overlooking the beach are, initially, the most critical terrain features in the area. Until these cliffs are cleared of the enemy, the assaulting troops will be subjected to observed fire from both flanks.

b. The high ground included in the triangle formed by the Rivers Aure, Tortonne and Drome is the next area of critical importance because it contains excellent positions for artillery, but has limited observation. This area will provide a defensive position for the left flank of the attacking force.

c. The bottleneck in communications at Isigny is of critical importance because this is the only outlet across the Aure and the Taute in the Western half of the Corps Zone of Action. There are four bridges at Isigny, three of which are of masonry arch con-



struction of from 45 ft to 85 ft in length. The fourth is a newly constructed reinforced concrete bridge 200 ft in length. The bridge across the Vire (250 ft, reinforced concrete) between Isigny and Carentan is also of major importance. The capture of these five bridges intact would greatly expediate our debouchment from the Grandcamp-Isigny area.

d. The high ground around St. Lo and the Foret de Cerisy provides the dominant elevations within the limits of this study. If to this line were added the heights north of Coutances (2357) (outside the area under consideration), the isolation of the north half of the Cherbourg Peninsula would be complete.

## 6. TACTICAL EFFECT OF THE TERRAIN.

a. The rapid rise and fall of the tide and the strong tidal current make it difficult for the enemy to maintain **underwater** obstacles on Beach 46. Furthermore, the width of the beach at low tide presents difficulties in the siting of underwater obstacles to prevent landing at various stages of the tide. The shingle strip along Beach 46 is a possible obstacle to movement of M/T and tanks. A German report on Dieppe raid, however, stated that "The heavy gravel on the Dieppe beach certainly rendered the landing of British tanks more difficult, but did not prevent it. This has been proved by the fact that several tanks were moved over the gravel without difficulty, after they had been repaired. Eye-witnesses reported that many more tanks (probably 16) had reached the promenade along the beach, but that they turned around and re-crossed the gravel to find more protection against the heavy defensive fire behind the gravel bank".

b. The concave shape of Beach 46 permits grazing fire by flat trajectory weapons sited anywhere along the beach or on the flat strip directly to the rear.

c. (1) The rapid rise of the terrain directly behind the beach favors plunging fire by flat trajectory weapons placed on the steep slope in rear of the beach or on the forward border of the plateau. On the other hand, flat trajectory weapons to be used for the defense of the beach will have to be placed well forward. If placed further in the interior, troops on the narrow land strip bordering the beach will have protection from the fire of these weapons.

(2) The enemy will have difficulty in covering the winding corridors and narrow draws leading from the beach with effective flat trajectory fire. Unless all of these are effectively covered, attacking forces will be able to find protection in them from flat trajectory weapons and to infiltrate through them to the rear of pillboxes on the beach.

(3) Due to the steepness of the slope directly in rear of the beach west of Le Ruquet River (665905), tanks accompanying troops in the assault will have to use the two corridors in this sector as exits from the beach. Since these corridors are narrow and are provided with concrete road blocks, enemy tank defense in this sector is greatly facilitated.

(4) The terrain in rear of the beach permits the employment of howitzer or mortar fire from defiladed positions. Excellent observation is afforded the enemy for the control of this fire. Houses and hedges that interfere with observation generally have been removed.

d. (1) After withdrawal from the first positions in rear of the beach, the next high ground available to the enemy for a line of defense will be the ridge generally about 2,000 yards in rear of the beach, using the small villages on the forward slope as fortified localities. Except for the hindering effects of intervening hedges, excellent fields of fire for flat trajectory weapons will be afforded from these positions.

(2) Until such time as the enemy has been driven from this high ground, the valley of the Aure and its tributaries will afford some defilade for the movement of mobile troops to positions from which counter-attacks may be launched.

(3) The defense of the Grandcamp-Isigny area by enemy forces will be facilitated by basing a defensive line on the flooded area  $1\frac{1}{2}$  miles to the east of Grandcamp.

e. (1) After withdrawal from the principal ridge north of the Aure, the next position suitable to the enemy for prolonged defense is the ridge running east-southeast of Trevieres and, in view of the flooded condition of the lower Aure, withdrawal by the hostile main force will have to be made east of Trevieres. For those forces caught in the Isigny-Grandcamp area it will have to be made through the Isigny corridor. The enemy can cause some delay to our forces by blowing all bridges across the Aure and it may be expected that this will be done.

(2) During this phase of the operation the only suitable terrain available to the enemy for armored operations will be in the area between Trevieres and Bayeux and even in this area armored deployment will be difficult due to narrow sunken roads and stout tree-hedges. Likewise, the enemy will be protected from our armor along that section of his line based on the flooded Aure Valley.

f. (1) Having been driven from the Trevieres Ridge, the enemy can pivot his line on the flooded Aure Valley and form a defensive line on the first ridges behind La Tortonne River. From this position he will have fair observation and will still be able to use the Aure Valley for the protection of his left.

(2) During this phase of the operation, the corridor on the east formed by the valley of the Drome will be available to the enemy for the launching of counter-attacks against our left flank. On the western flank the enemy will be protected by the River Vire and its marshy lowlands.

g. When the enemy is driven from the Trevieres Ridge-- Aure River line, a good defensive line will be afforded by the dominating Lison-Baynes-Foret de Corisy Ridge. Although the eastern flank is broken by the spreading corridors of the River Drome and several small corridors lead well into the forward slopes, this position dominates the valleys to the north, its western flank is fairly secure, and its front and flanks are not suitable for extensive tank attacks.

h. The main rail line running parallel to the coast from Bayeux to Carentan is double track, but it is so close to the initial assault area that it is unlikely that this line will be used for the detrainment of mobile reserves. The next line, which also runs parallel to the coast between Folligny-Vire-Fiers, is 30 miles away and involves at least a 2-hour motor movement or a forced march of some 15-20 hours on foot to reach the assault area. The main rail lines into the area are sufficient for the transport and detrainment of two full-strength divisions in a period of 24 hours.

i. The road net leading into the area is sufficient to carry all available reserves which may be brought into the area either by rail or motor. Since the principal through routes center on Bayeux in the East and Isigny in the West, major motor movements may be expected to come into the assault area through or near these points. Minor roads leading into the assault area are narrow, frequently sunken and usually lined with strong hedges. Deployment from these roads will be difficult for motors and tanks.

j. The telephone and cable net is ample to permit prompt warning and the issuance of orders to mobile reserves.

HUEBNER  
Maj Gen

OFFICIAL:

*Evans*  
EVANS  
G-2

Appendix "A" - Road and Stream Map  
Appendix "B" - Ridge and Stream Map  
Appendix "C" - Town Plans.

H.Q. 1ST U.S. INFANTRY DIVISION  
 APO I U.S. ARMY  
 25 MARCH 1944  
**ROAD & BRIDGE MAP**  
 SCALE 1/25000  
 COMPILED FROM INFORMATION RECEIVED  
 FROM V CORPS  
 FIRST U.S. ARMY  
 AERIAL PHOTO INTERPRETATION  
 APPENDIX "A" TO TACTICAL TERRAIN STUDY  
 HUEBNER  
 MAJ. GEN.  
 OFFICIAL:  
 EVANS G-2

**- LEGEND -**

**ROAD INFORMATION**

NUMBER INDICATES:  
 WIDTH OF ROAD IN FEET

LETTER INDICATES:  
 H - HARDSURFACE ROAD  
 W - WATERBOUND ROAD (TARMAC)  
 G - WATERBOUND ROAD (GRAVEL)  
 D - DIRT ROAD

**BRIDGE INFORMATION**

W - WIDTH OF RIVER AT BRIDGE  
 L - LENGTH OF BRIDGE  
 R - WIDTH OF BRIDGE  
 T - TYPE OF BRIDGE  
 M - MASONRY  
 S - STONE  
 C - CONCRETE  
 NUMBER OF SPANS WILL BE SHOWN  
 IN FRONT OF TYPE OF BRIDGE  
 (3M#3 SPAN MASONRY)

**RAILROAD INFORMATION**

STANDARD GAGE LINE

**TERRAIN INFORMATION**

FLOODED AREAS

**RIVER INFORMATION**

RIVERS (SEE REMARKS FOR ADDED  
 INFORMATION ON RIVERS)

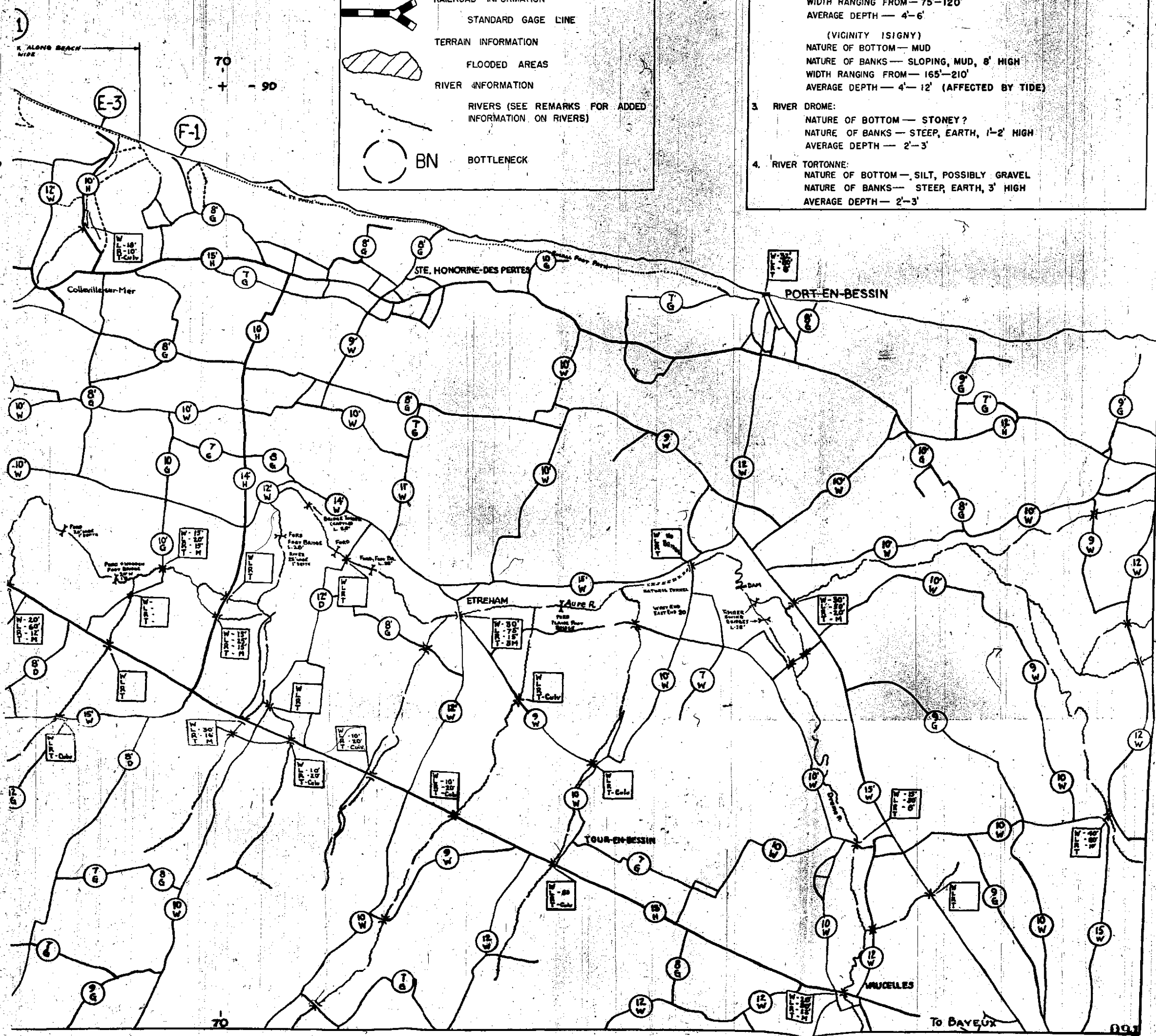
BN BOTTLENECK

**REMARKS**

OBSERVATION AND FIELDS OF FIRE ARE LIMITED BECAUSE OF THE EARTH HEDGES AND TREES, WHICH LINE THE BORDERS OF THE NUMEROUS SMALL CULTIVATED FIELDS.

THE ROADS IN THE AREA ARE GENERALLY SUNKEN AND LINED WITH THICK, SUBSTANTIAL, HEDGES INTERSPERSED WITH ROWS OF TREES STANDING 15'-20' HIGH.

- AURE RIVER:**  
 NATURE OF BOTTOM - SILT POSSIBLY GRAVEL  
 NATURE OF BANKS - STEEP EARTH, 3'-4' HIGH  
 AVERAGE DEPTH - 2'-3'
- RIVER VIRE (VICINITY ST. LO)**  
 NATURE OF BOTTOM - MUD?  
 NATURE OF BANKS - STEEP, EARTH, 3'-5' HIGH  
 WIDTH RANGING FROM - 75'-120'  
 AVERAGE DEPTH - 4'-6'  
 (VICINITY ISIGNY)  
 NATURE OF BOTTOM - MUD  
 NATURE OF BANKS - SLOPING, MUD, 8' HIGH  
 WIDTH RANGING FROM - 165'-210'  
 AVERAGE DEPTH - 4'-12' (AFFECTED BY TIDE)
- RIVER DROME:**  
 NATURE OF BOTTOM - STONEY?  
 NATURE OF BANKS - STEEP, EARTH, 1'-2' HIGH  
 AVERAGE DEPTH - 2'-3'
- RIVER TORTONNE:**  
 NATURE OF BOTTOM - SILT, POSSIBLY GRAVEL  
 NATURE OF BANKS - STEEP, EARTH, 3' HIGH  
 AVERAGE DEPTH - 2'-3'



# TOP - SECRET - BIGOT NEPTUNE

TOP - SECRET  
AUTH C G  
1 ST U.S. INF. DIV.  
25 MARCH 1944  
INITIALS *APC*

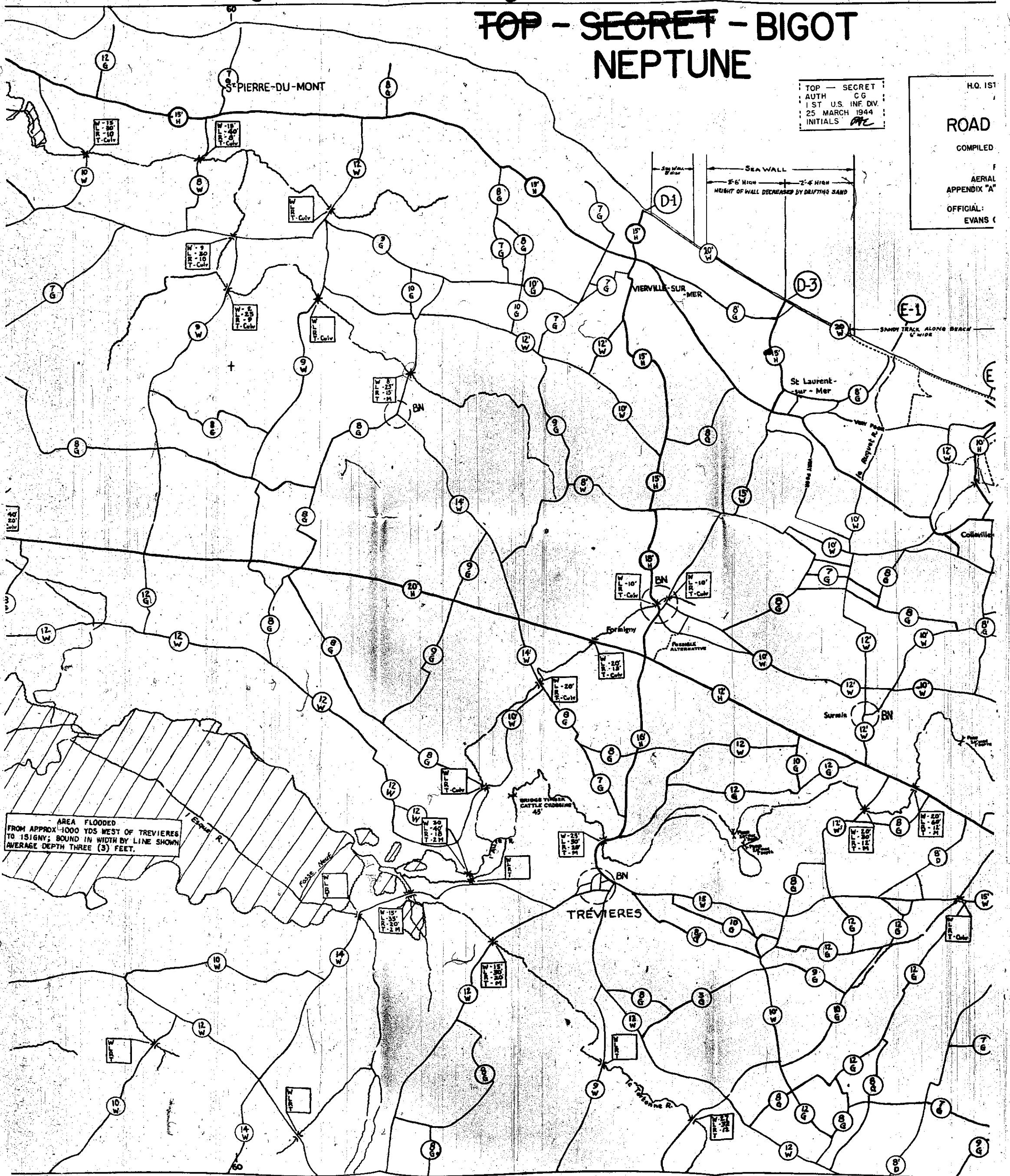
H.Q. 1ST

ROAD

COMPILED

AERIAL  
APPENDIX "A"

OFFICIAL:  
EVANS (



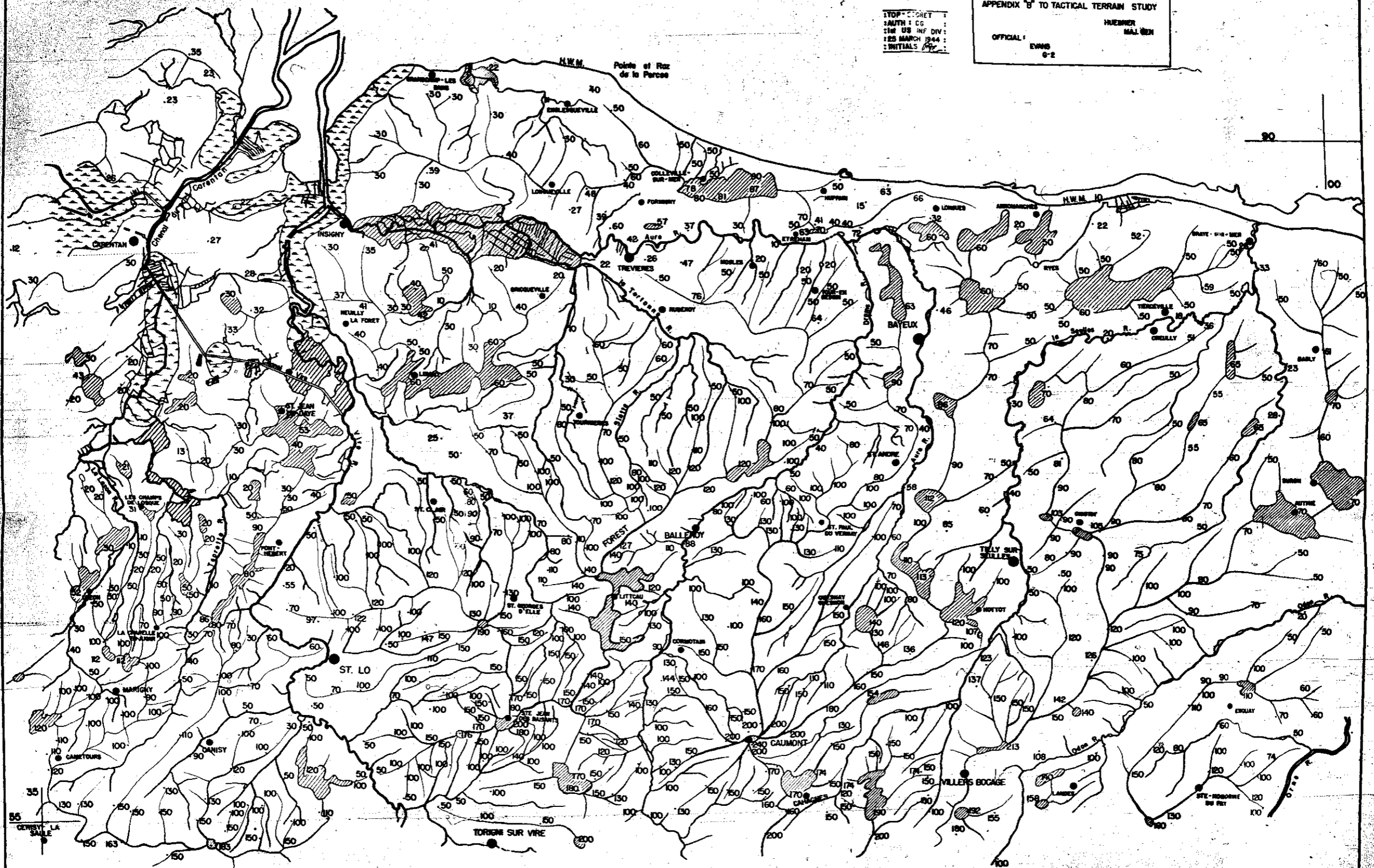
AREA FLOODED  
FROM APPROX 1000 YDS WEST OF TRÉVIÈRES  
TO 15IGNY; BOUND IN WIDTH BY LINE SHOWN  
AVERAGE DEPTH THREE (3) FEET.



~~TOP SECRET~~ - BIGOT - NEPTUNE

HQ 1st U.S. INFANTRY DIVISION  
APO 1 U.S. ARMY  
23 MARCH 1944  
**RIDGE & STREAM MAP**  
SCALE 1/135,000  
MAP G.S.G.S. No. 4249 - Sheets 6E, 6F & 7F  
APPENDIX "B" TO TACTICAL TERRAIN STUDY  
OFFICIAL: EVANS  
6-2

~~TOP SECRET~~  
AUTH: CG  
1st US INF DIV  
23 MARCH 1944  
INITIALS: [unclear]



**Rivers**  
Small streams, brooks  
High primary Ridges  
Lower secondary Ridges  
Spot elevations in meters

**Inundated Area**  
Area Possibly Inundated  
Hill tops with contour elevation given

SCALE: 1/135,000  
MILES

~~TOP SECRET~~ - BIGOT - NEPTUNE