

N-6929

N-6929

UNCLASSIFIED

N-6929

PHOTOGRAPHIC PROGRAM

OF M.A.P.R.C.

IN SUPPORT OF OPERATION

"SHINGLE"

1 JANUARY TO 15 FEBRUARY 1944

JUN 21 1965

*47 pages of  
Shingle  
in their  
Slower*

*15 Apr 44  
15 Apr 44  
15 Apr 44  
18 Apr 44*

JUN 21 1965

N-6929

JUN 21 1945

Classification changed to

~~RESTRICTED~~

by authority of S, G-2, WDGS

by *Ray M. Stroupe*

RAY M. STROUPE  
1st Lt Inf  
Ass't Custodian

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[Redacted]

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HEADQUARTERS

: Auth CO, MAPRC  
: Initials  
: 15 March 1944

MEDITERRANEAN ALLIED PHOTOGRAPHIC RECONNAISSANCE COMMAND

OFFICE OF CHIEF OF STAFF  
APO 520 U.S. ARMY

(PRX-PAK-fsk)

15 March 1944.

Commanding General,  
Command and General Staff School,  
Fort Leavenworth, Kansas,  
Attention: Director of Air Force Instruction.

JUN 21 1965

Dear Colonel Warren:

Enclosed is a detailed description of the photographic reconnaissance by this Command that took place in support of the ANZIO operation south of Rome. It gives a detailed study of our reconnaissance efforts and illustrates the type of photography we now do for the Army Ground Forces. It is hoped it will be of value to the School in their instruction program. It may interest you and General Truesdell to know that based upon the sorties flown, the following is the percentage of effort by this Command for photographic reconnaissance:

5th Army	33.5%
8th Army	11.3%
Force 133 (Part-isans)	5.3%
A.F.H.Q.	4.8%
Total Army Effort	54.9%

The rest of our effort is devoted to the Air Forces, to planning staffs, and to miscellaneous Tactical and Strategical commands. We cannot emphasize too much that the demands for photography by the Army Ground Forces are daily increasing in importance, scope, and volume. The value is almost self-evident, as surely this report illustrates - particularly when we can furnish such things as accurate, annotated mosaics down to and including the assault platoons.

Scheduled to attend the next Command and General Staff School from this Headquarters is 1st Lieutenant Lester L. Logue, O-1100651. He is one of our Topographic Engineers, and should be able to give you a fairly accurate picture of the way the Engineers fit into the operational functions of this Command. He has been asked to pay his respects to you, and we hope that he may be of some assistance. He is one of our best junior officers. His ability justified us in selecting him for the School.

Sincerely,

UNCLASSIFIED

Phillip A. Kennedy  
PHILLIP A. KENNEDY,  
Major, Air Corps,  
Chief of Staff.

1 Incl: Report on Operation  
"Shingle"

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1 Incl: Report on Operation "Shingle" Chief of Staff.

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PHOTOGRAPHIC PROGRAM  
OF M.A.P.R.C.  
WITH FIFTH ARMY OPERATION "SHINGLE"

I. GENERAL

1. In providing photographic reconnaissance and reproduction facilities for Operation "Shingle", MAPRC flew all the basic coverage and issued reports necessary for the Planning Staff; provided detailed special mosaics, beach panoramas and enlargements for the Navies and assault troops; and maintained constant daily reconnaissance for use by the Ground Forces and the Tactical and Strategic Air Forces backing up the operation.

2. Sorties were flown in P-38, Spitfire and Mosquito type aircraft at altitudes ranging from 25,000 to 30,000 feet. Three low altitude oblique missions (300 feet) were flown along the beaches in P-38 type aircraft to furnish, for the invasion forces, photographs of the actual locations upon which the landings were to be accomplished. The cost of photographic support from D Day minus 15 to D Day plus 9 was: 1 F-5 lost, 1 Spitfire lost, 8 F-5's damaged, 2 pilots lost, and 1 pilot wounded.

3. A complete mosaic of the disposition of landing and supporting craft was flown on D Day for the Navy and for Future Planning Staffs for the purpose of critique and future reference. This was flown at 10,000 feet with a 6-inch focal length camera. (See print under tab M.)

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## II. DETAILS OF OPERATION

### 4. Basic Coverage.

a. Basic coverage of the assault area had been flown and prints furnished planning personnel prior to the period covered in this report. Between 2 January and 19 January 1944, 14 special sorties were flown for the study of defences and to provide the most economical coverage for bulk production.

b. Negatives of certain sorties were specially annotated and prints produced for distribution to personnel concerned. To facilitate use of photographs with maps, the approximate scale appeared on every print together with the North point and map reference of one or more prominent features.

c. Between 1 and 20 January, M.A.P.R.C. produced 120,462 loose prints for "Shingle" (90,232 prints were produced for operation "Avalanche"). The distribution was necessarily on a large scale since the areas in which each division would operate could not be forecast before the landings. Therefore each division was provided with basic cover of the entire area. Diagram Number I shows graphically the distribution of this basic cover.

### 5. Mosaics.

a. Three 1:10,000 mosaics were produced with defence and topographical annotations. These were provided primarily for use in the assault stage, but distribution was timed to allow issue down to and including the assault platoons. Distribution of mosaics is shown on Diagram Number II. (See sample prints 1, 2, and 3 attached.)

b. For use in the large area between ANZIO-COLLI LAZIALI, ten mosaic sheets were made approximately corresponding with the 1:25,000 map sheets in scale and area

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(5,b.)

covered. Arbitrary marginal grid lines were printed on these mosaics. Each division had to be provided with a mosaic of the whole area, because again it could not be accurately forecast in which area each division would operate. (See sample print Number 4.)

c. These 1:25,000 gridded mosaics were also used by Air Support Command tactical bombers for target briefing.

d. A total of 9,523 mosaic sheets were supplied by M.A.P.R.C.

6. Panoramas. A coastal oblique sortie provided the material to make a panoramic strip of the assault beaches. Such strips were distributed down to and including the assault platoons and amounted to 960 sheets. Distribution is shown by Diagram Number II. (See sample prints 5, 6 and 7.)

7. Enlargements. 294 enlargements, mostly of coastal obliques, were made for use by the United States and British Navies. The Navies also made extensive use of repetitive cover for beach gradient study. M.A.P.R.C. flew sorties to furnish both clear water conditions and particular wave conditions required to determine the gradients.

8. Communications.

a. No pre-landing broadcast of last minute intelligence was necessary, as it was in operation "Avalanche", because the final sortie was interpreted by the Corps' interpretation section immediately prior to embarkation. Personnel for Corps interpretation sections was supplied by M.A.P.R.C.

b. Sorties were flown as requested by Hq., VI Corps. A liaison officer was attached to VI Corps for the purpose of coordinating and passing these demands.

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(8.)

c. Sorties flown after D Day were interpreted at the Fifth Army Photo Center, followed immediately by a broadcast summary over the Photo Reconnaissance Unit radio net (A.9.).

d. Three days after the landing, Hq., VI Corps joined the A.9. radio net, which could then be used for counter battery purposes in accordance with normal procedure. This enabled the Counter Battery Officer at Corps to pass requests for coverage and examination of areas directly to the Photographic Center. Missions were flown by M.A.P.R.C. aircraft, prints were interpreted by M.A.P.R.C. personnel at V Army Photo Center, and the intelligence was passed back by the Assistant Counter Battery Officer.

e. Flying demands, other than those from the Counter Battery Officer required handling on a higher security classification since they might show by implication the intention of our own troops. Such demands were passed by the A.1. communications net from Corps or Army Headquarters for delivery to the P.R.U.

f. Delivery of prints and photographs. As soon as an emergency landing strip was available on the beachhead (6 days after D Day), three sets of intelligence information from relevant sorties and Army Center Interpretation reports have been delivered to the VI Corps Headquarters by C-78 aircraft to arrive by 1000 hours the following morning.

9. Daily Flying Program. Given reasonable weather, a minimum of three high altitude sorties daily are required to handle the photographic reconnaissance needs of an operation of this type and size. Two sorties normally were of

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(9.)

24" focal length, one of 36" focal length. In addition to these direct missions, an additional three to four sorties daily have been required to provide material necessary for the balance of the Fifth Army activities and to cover the Air Force operations backing up the Army program.

### III. RECOMMENDATIONS FOR FUTURE OPERATIONS.

10. Operation "Shingle" has emphasized lessons previously learned expensively in "Avalanche". The shortage of 36-inch camera aircraft in this Command forces it into dangerous expedients to meet the tactical situation, particularly where excessive amounts of defence study and bomb damage assessment photographs must be made daily. The K-17 camera with 24-inch lens cannot produce the photographic definition required by interpreters to make accurate and trustworthy assessment of gun positions and other defences. An attempt was made to obtain such definition by using 12-inch cameras from below 10,000 feet. This proved too costly unless absolutely necessary to the success of an operation.

11. The use of photographs down to and including assault platoons is possible only when photographic facilities are concentrated in one unit. This is true because unity in photographic facilities permits immediate movement of reinforcing subunits and equipment to meet demands created by operations such as "Shingle". Only such concentration enabled this Command to produce in January 1944 over 900,000 prints, the highest monthly production figure yet reached by this organization.

12. Communications become a problem immediately upon the establishment of a beachhead ahead of the main effort.

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~~SECRET - For the British MOST SECRET~~

(12.)

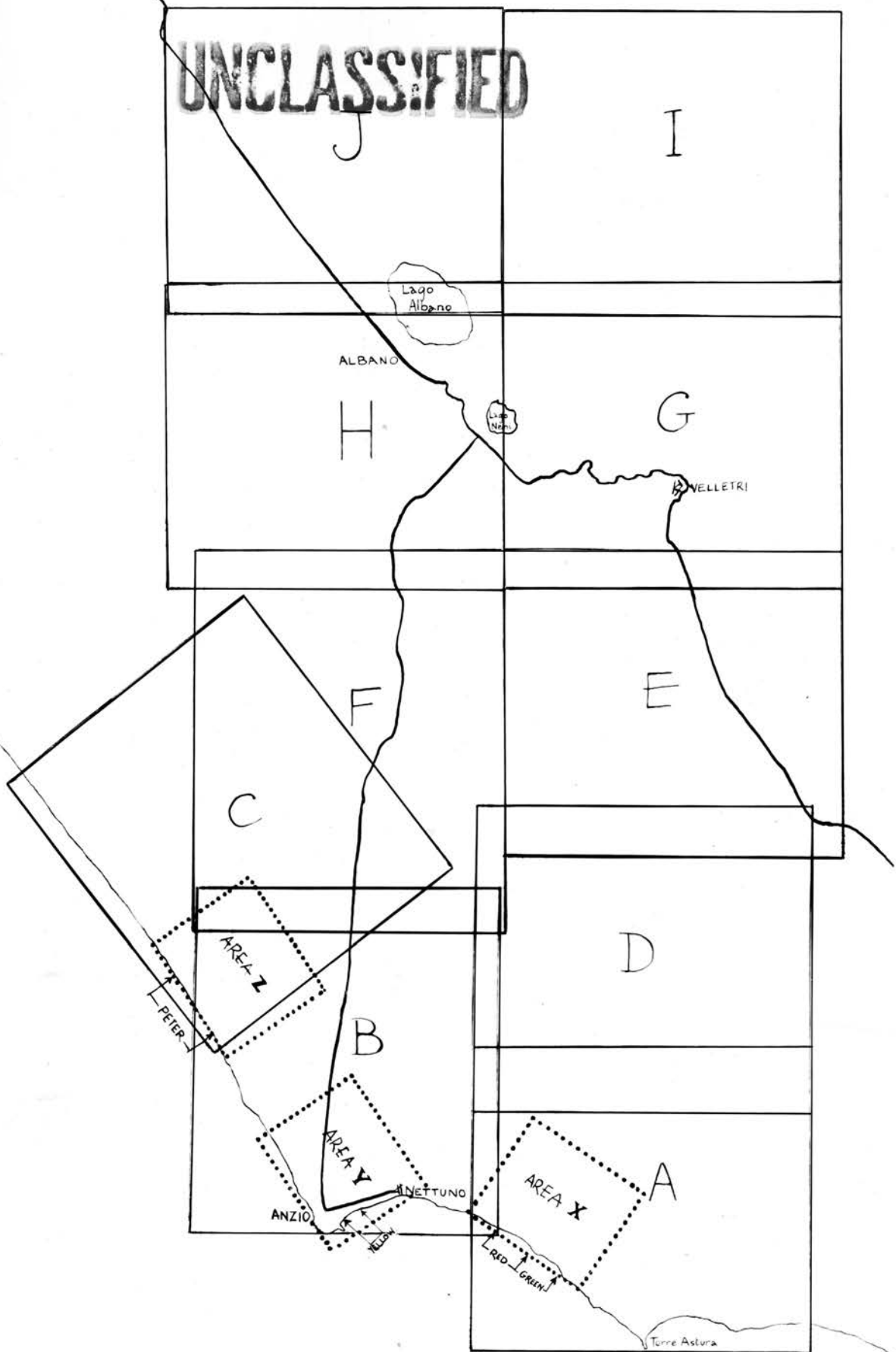
It is obvious that film from sorties flown over the beachhead had to be returned to base for development. Further, unless the results were flown back to the beachhead for immediate use by the tactical units, the effort by this Command to produce the photographs would be useless. The only type of aircraft available were two C-78's. These were flown at low altitudes to the beachhead. So far no losses have been sustained. However, it is suggested that this is an extremely hazardous procedure and should be adopted only where the operation justifies the risk, as in this case.

#### IV. STATISTICS

Sorties Flown.....	208
Casualties.....	2 pilots missing, 1 wounded, 2 A/C de- stroyed, 8 damaged.
Interpretation Reports Issued.	420
Prints Produced.....	190,773
Mosaics Produced.....	9,523
Panoramas Produced.....	960
Enlargements Produced.....	294

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DISTRIBUTION of MOSAICS and PANORAMAS.												
	I DIV.	3 DIV.	RANGERS	504 Bn Regt.	NAVY.	VI CORPS	VI CORPS	VI CORPS	ARMY HQ	PANORAMAS	STATES	45 DIV.
1/10000 AREA X	170				1	6	3	5	2	13	200	
" Y		50			1	6	3	5	2	13	200	410
" Z	100				1	6	3	5	2	13	200	
1/25,000 A	56		1	7	25	3	5	5	63	1	28	150
" B	50	6	1	7	25	3	5	5	63	1	28	150
" C	50		1	7	25	3	5	5	63	1	28	150
" D-J EACH	50	56		7	25	3	5	5	63	1	24	1680
PANORAMAS 55 SITES EACH	90											
PETER						1	1	3	3	1	1	500
YELLOW.		5	46			1	1	3	3	1	1	60
RED.		170				1	1	3	3	1	21	200
GREEN.		170				1	1	3	3	1	21	200

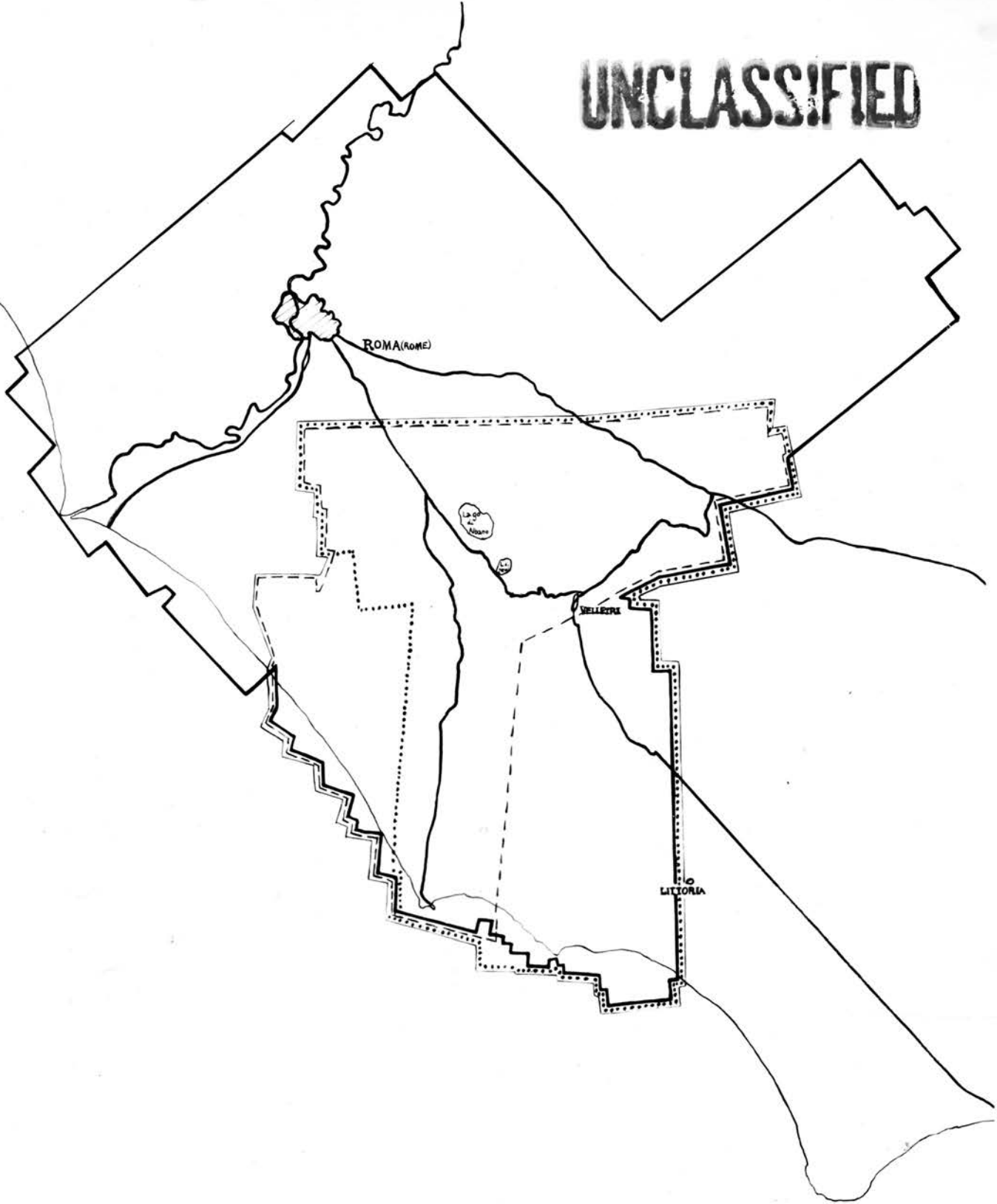
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SECRET

DIAGRAM NUMBER I.

20-060-A

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DISTRIBUTION of BASIC COVER.			
		Cover of Area between boundaries of special areas & area shown:—	
		SETS	SETS
.....	3 U.S. DIV.	20	2 - 10
- - - -	1 Br. DIV.	20	2 - 10
————	1 U.S. DIV.	26	5 - 10
PARTIAL COVER ALSO SUPPLIED TO:—			
G-2 Planning (FIFTH ARMY)			
VI Corps (STAFF)			
45 U.S. DIV.			
British NAVY.			
U.S. NAVY.			
52nd Troop Carrying Wing.			
U.S. Rangers.			
504 Para Regt			
Commandos.			
TOTAL PRINTS : 120,462.			

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SECRET

DIAGRAM NUMBER 2.

20-060-B

SMALL TREES  
(good cover)

STREAM  
BEDS

WOODS  
9416

WOODS  
9217

TOWER

WATER

INCOMPLETE

905176

NETTUNO  
AIRPORT

AMMO. DUMP

CLIFFS

WATER

POWER

RED

**TARGETS**

TOWNE

TOWER

941153

DEFENCE WORKS  
(abandoned)

## SAND and ROCKS

MANY  
SMALL  
EMP -

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AREA "X"

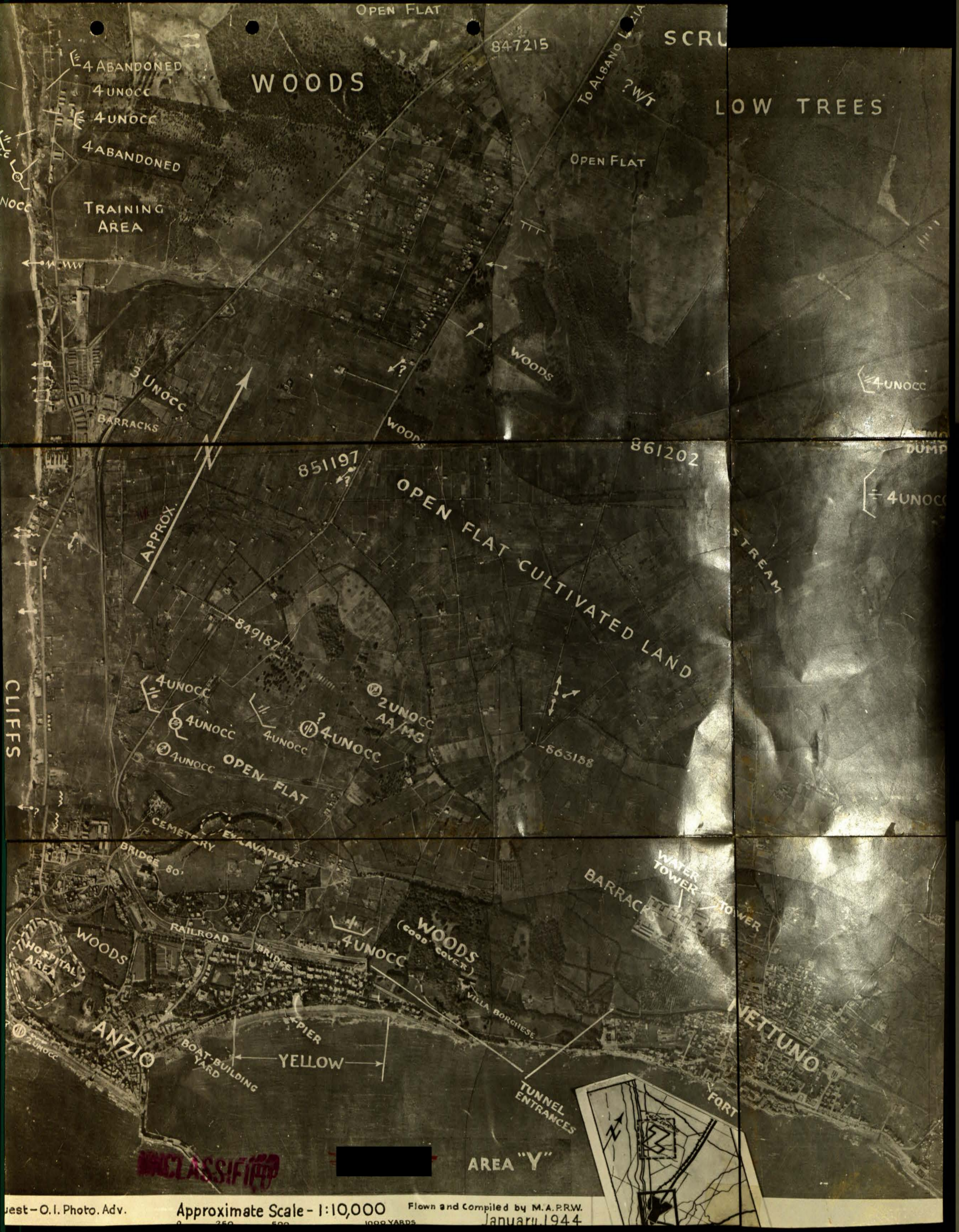
Approximate Scale - 1:10,000

Flown and Compiled by M.A. PRW  
January, 1944  
M.C. No. 40,008

G.S.G.S.-4229-SHEET 34

GREEN

1710



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835263  
SCRUB AND SMALL TREES

UNCLASSIFIED

824257

PLOUGH AND ARABLE LAND

OPEN PASTURE LAND

FOSSO CAFFARELLA

UNCLASSED STREAM

796274

BRIDGE TO BRIDGE 1330 YDS.

834262

BRIDGE TO BRIDGE 2060 YDS.

THICK WOODS

TREES AND ORCHARDS  
NUMEROUS INF. EXITS

815243

BRIDGE & BRIDGE 1000 YDS.

815234

TOWER of ST. ANASTASIO  
818246

ST. ANASTASIO

SCRIAVO

To ANZ

WOOD  
SCRUB

VALLEY

340 YDS

850 YDS.

220 YDS. 150' 250 YDS

870 YDS.

160' 250 YDS. 170'

500 YDS

400 YDS

100 YDS

AREA "Z"

Request—O.I. Photo. Adv.

Approximate Scale—1:10,000

Flown and Compiled by M.A.B.R.W.

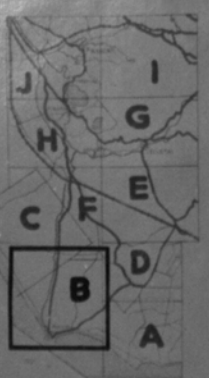
Ref. No. 1148/P.C.40

January, 1944

M.C. No. 40,008

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↑  
N  
APPROXIMATE

Request - O.I. Photo. Adv. January, 1944. M.C. 40,002  
Ref. No. 1116/P 39. Flown and Compiled by M.A.P.R.W.  
APPROXIMATE SCALE - 1:25,000  
0 1/8 1/4 1/2 1 MILE 2  
G.S.G.S. 4164, Sheets 150, 158.  
AREA 'B'

unclassified

WOODS  
26175

TOWER  
93159

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TARGETS

SAND AND ROCK

GREEN BEACH

TOWER  
936156

WOODS  
945166

ENTRANCE

SAND AND ROCK

APPROXIMATE SCALE AT BEACH

0 100 200 300 400 500 YARDS

40003

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STRIP 1

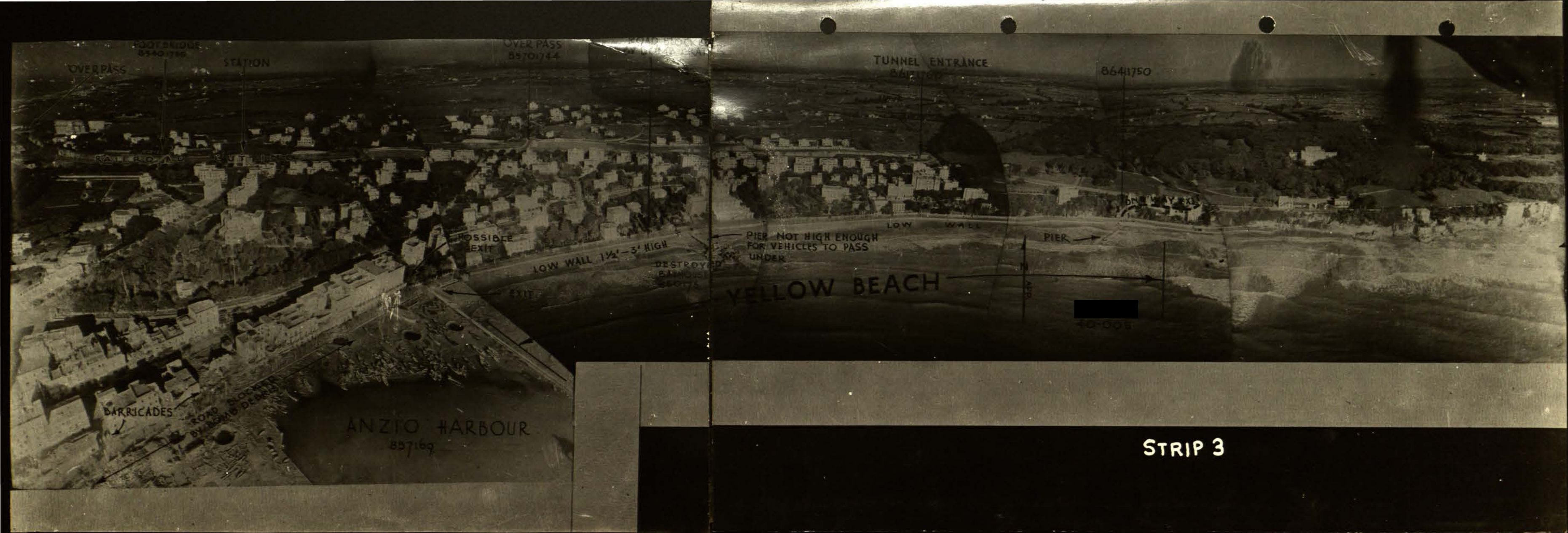


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STRIP 2







PICTURE NO. 1. START OF DIVE-BOMBING ATTACK.



PICTURE NO. 2. THE ATTACK DEVELOPS - NOTE DIRECT HIT.



PICTURE NO. 3. THE LANDING PROCEEDS. NOTE BURNING BOAT.

Reconnaissance pilots covering the beachhead landings for critique purposes obtained these unusual pictures of a German dive-bombing attack. Picture No. 1 shows the start of the attack; No. 2 shows additional bombs and direct hit on one of the small landing craft, which is seen burning in Picture No.3.

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Anzio

Nettuno

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