

ACC 088/PWU

10000/150/361

MALARIA
PROJECTS
MAY - OCT.

10000/150/361

MALARIA CONTROL, ENGINEERING
PROJECTS
MAY - OCT. 1944

Acc 1088/Ru

See also file
159

MALARIA CONTROL [088]

ENGINEERING PROJECTS

Opened - 4 - May - 1944
Closed - 22 October 1944

ENGINEERING PROJECTS

Opened - 4 - May - 1944
Closed 22 October 1944

10000

150

361

THIS FOLDER

CONTAINS PAPERS

FROM MAY

44

TO OCT

44

CATALOGUE -

144

88

Tel. 478200

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

HWV/ce

ACC/088/PWU

27 Oct 44

SUBJECT: Ferrovia Metropolitana di Roma.
Flooding of tunnel near Colosseum.

TO : Ministero delle Comunicazioni.

1. We refer to your letter No. 327/F.630 dated 10 Oct. 44, which you addressed to the Transportation Sub-Commission.
2. The flooded tunnel has been inspected by officers representing the Public Health, Malaria Control and Public Works departments of this Commission.
3. It is considered that the water in the tunnel, being in darkness, will not give rise to the breeding of mosquito larvae. Therefore, it constitutes no danger to public health, and there is no need either to remove it or to treat it with a larvicide.
4. However, in the open excavation which extends some 300 metres west of the Obelisk of Aksum, and also in the excavation for the proposed railway station near the Colosseum, there are stretches of water that might become breeding places for anopheline mosquitoes. The former is the more dangerous and extensive. All that will be necessary in the interests of public health is the weekly application of Paris Green to these pools during the malaria season.
5. In the case of the water in the excavation near the Colosseum, we think it would be possible (at little trouble) to drain much of it away into the sewer which passes under the mouth of the tunnel, but the practicability of this can only be verified by ascertaining the relative levels. If it cannot be so drained it will be sufficient to treat it with Paris Green as already stated in the preceding paragraph.

Copies to: Public Health Sub-Commission
(Malaria Control Branch),
in reference to letters ACC/3005/PH.
of 21 and 25 Oct. 44
File 159.

6354
G.E. RHODES,
Lieut-Colonel, R.E.
Acting Director.

Tel. 489081

HWW/mc

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

58

ACC/088/PWU

21 Oct. 44

Subject: Ferrovia Metropolitana di Roma.
Return of Plan.

To : Ing. Tosti,
Roma Via Alessandria, 171.

The plan of the tunnel of the Ferrovia Metropolitana,
which Maj. Westwood borrowed from you, is returned herewith.
Please accept our thanks for the loan of it.

 MAJOR, R.E.
H. W. WESTWOOD

 G.E. RHODES,
Lieut-Colonel, R.E.,
Acting Director.

6355

HEADQUARTERS
ALLIED CONTROL COMMISSION
APO 394
Public Health Sub-Commission

ACC/3005/PH

25 October 1944

SUBJECT : Railway tunnel.

TO : Major Westwood
Public Works and Utilities
A.C.C.

After inspecting the railway tunnel starting 100 yards East of the Colosseum to a point 250 yards West of the monument of Axum as to possibility of this section being a malaria hazard I find:

1. That by digging a ditch two of three yards long and by filling the spring fed pool located just East of the Colosseum could be drained; this pool is not an ideal breeding place for anopheline mosquitoes and has only a remote possibility of ever being such a breeding place.
2. The water in the open excavation extending for 300 yards West of the monument of Axum is a probable breeding place of anopheline mosquitoes. As it is lower than other parts of the tunnel and has a spring fed stream running into it and has a great amount of ground seepage it would seem to require continuous pumping to keep this dry and the cost of this pumping compared to that of weekly applications of Paris Green during the malaria season would be so much greater that it would not be practical.
3. The other covered portions of the flooded area are too dark for any larvae breeding.

For Brigadier G.S. PARKINSON:

John S. Wehrle

Malaria Control Branch
John S. Wehrle, 1st Lt. CA 6352

JSW/ae

John S. Wehrle

HEADQUARTERS
ALLIED CONTROL COMMISSION
APO 394
Public Health Sub-Commission

56

25 October 1944

ACC/3005/PH

SUBJECT : Railway tunnel.

TO : Major Westwood,
Public Works and Utilities Sub-Commission
A.C.C.

I made a survey near the Axum Obelisk and found a section of the railroad tunnel that is really an open air excavation about 200 m. long and 6 m. wide whose bottom is full of water, constituting a suitable breeding place for Anopheles larvae.

From a strictly malariological point of view it is sufficient to distribute Paris green every week during the mosquito season. The same antilarval measure may be employed for the smaller open air section of the same tunnel in the vicinities of the Colosseum.

Augusto Corradetti
Prof. Dr. Augusto Corradetti
Malaria Laboratory
Istituto di Sanita' Pubblica.

AC/ae

6351

11/10/44
24/10

22 OCT Recd

159
C.D.

55

HEADQUARTERS
ALLIED CONTROL COMMISSION
APO 394
Public Health Sub-Commission

ACC/3005/PH

21 October, 1944.

SUBJECT: - Flooded Area Near Colosseum.

TO : - Major Westwood, Public Works
and Utilities. HQ ACC

Upon inspecting the flooded area between the two completed sections of railway tunnel 100 yards east of the Colosseum, I find there is a remote possibility of anopheline breeding at this place next year. I make the following recommendations:

1. That an engineer check the water levels and determine if by running a ditch to either of the two streams four or five yards away this spring fed pool could not be drained. In all probability the pool is too low and will have to be partially filled. If such a ditch is made it should have stone or cement sides.

For Brigadier G.S. PARKINSON:

John S. Wehrle
JOHN S. WEHRLE, 1st Lt. SAC
Malaria Control Branch.

JSW/mte

*Heckle 24. Wehrle
Today (24 Oct) 11 AM
investigate further with some
H.M. 23 Oct.*

6350

*26/10
10/11/44*

16 OCT 1944

nf

TRANSLATION

Ministry of Communications
General Inspectorate for Civil Motorization
and for transports in concession

Ref. Serv. 1 - n. 327/F.630 - L/D.

Rome Oct. 10th 1944

TO : ACC - Tn. Sub.Commission

SUBJECT : Subway of Rome; flooding of the tunnel under
the antequarium near the Colosseum.

Societa Italiana Strade Ferrate del Mediterraneo, grantee for the construction of the Subway of Rome (E.U.R.) informed us that, on account of present scarcity of electric power, they did not succeed in obtaining from AGEA the supply of the power required to put in operation the water-draining plant which is located near the Colosseum.

The result was that the water from a spring near the pump-station and, during rain-days, the water from two adjoining sections of the tunnel which are still uncovered, flow together into the tunnel, under the Antiquarium, which is presently filled with about 2 mts water above the top surface of the rails, so that the machinery has been submerged.

It would consequently be necessary to drain off by means of motor-pumps all water which flooded the tunnel in order to be able to disassemble the pump-plant and to take it into a repair-shop where the pieces, which cannot be repaired, could be replaced.

But above Company points out that they are not in a position to carry out above programme on account of lack of suitable equipment and of necessary materials and because they could not bear the expenses.

On the other hand, as several private houses and a military hospital employed by the Allies are in the vicinity an intervention is required also for the sake of public health.

We therefore ask that Sub.Commission to kindly

6349

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On the other hand, as several private houses and a military hospital employed by the Allies are in the vicinity an intervention is required also for the sake of public health.

We therefore ask that Sub.Commission to kindly investigate whether said programme could be carried out by the Allied Military Authorities; if above possibility exists, closer agreements should be taken directly with Eng. Vito Perrone, General Technical Inspector, Director of General Inspectorate for Civil Motorization (phone 81157), who is charged with the supervision of the construction works of above subway.

In the meantime this Ministry has requested General Direction for the Public Health, attached to the Ministry of Interno, that anti-mosquito substances be spread over the zone in order to prevent that malarial infection centers may be created.

what

We await to know measures could be taken by that Sub.Commission.

The Minister
sgd Cerabona

6349

CONFIDENTIAL.

MEDITERRANEAN PHOTOGRAPHIC INTELLIGENCE CENTRE.
H.Q., M.A.A.F. INTELLIGENCE SECTION.
c/o MAPRW. APO.520.

NCW/S.

28th September 1944.

Ref : MPIC/21.

Subject : Photo cover for study of flooding.

To : H.Q., Allied Control Commission,
Public Works and Utilities Sub-Commission,
APO.394.

1. With reference to your letter ACC/088/PU dated 20th September 1944, I have requested the photo reconnaissance organisations working with the Armies in Italy to supply this cover to you in due course, as these areas pass into Allied control, and I attach a copy of my letter.

deletions.

N.C. WESTWOOD.
Captain.
for Wing Commander,
Commanding, M.P.I.C.

*Major Westwood**Your name is**5/10*

6348

Recd 22 Oct.

This information is now being regularly furnished by HQ. A.C.C. but we have not yet received any stereo photos.

21/10

MEDITERRANEAN PHOTOGRAPHIC INTELLIGENCE OFFICE.
H.Q., M.A.A.F. INTELLIGENCE SECTION.
c/o M.A.P.R.W. APO. 520.

NO. 10.

28th September 1944.

Ref : MPIC/21.

Subject : Photo cover for the study of flooding.

To : O.C., P.R.U., 5th Army.
C.2., Air, Main 8th Army.

1. The attached map has been received from H.Q., A.C.C. Public Works and Utilities Sub-Commission, APO. 394, with a request for one set of medium or large scale stereo ^{cover} of lock gates, pumping stations and breaches in river embankments in the shaded area, taken as near as possible to the time when these areas come under Allied control for a study of the problems likely to arise from large scale flooding.

2. It is thought that the Army Engineer Branches will have the necessary information to enable this cover to be supplied in due course in the respective Army areas.

3. It has been pointed out to the demander that this request cannot be allowed to interfere with operational requirements.

4. Please despatch this cover direct to the demander, quoting references ACO/088/PU.

H. O. Westwood
H. O. WESTWOOD.
Captain.
For Wing Commander,
Commanding, M.P.I.C.

6347

Enclosure.

Copy to: H.Q., Allied Control Commission,
Public Works & Utilities Sub-Commission, APO. 394.

Copy to MPIC/13

LIBERATED ITALY

ALLIES WIN BATTLE AGAINST MALARIA

ROME, September 19 - The Allies have won another important battle in Italy, inflicting a heavy defeat on the Germans and on the ally recruited by the enemy for behind-the-lines sabotage - the malaria-bearing anopholes mosquito.

The Allied victory was achieved "despite the chaos of total war and all that the Germans could do to intensify the malaria potential," reported Colonel Paul P. Russell of the U.S. Army, Chief malarialogist of the Allied Control Commission. Colonel Russell is on leave to the Army from the Rockefeller Foundation.

In announcing the Allied victory over the two enemies, he said the Germans had sent two well known entomologists into areas which the Italians over a period of years had drained of mosquito-breeding places. Soon after their visit the German Army reflooded the reclaimed marshes, thus increasing the spread of malaria.

The Germans did succeed in trebling and quadrupling the malaria rate among Italian civilians in some areas but the prompt work of Allied medical officers and engineers saved thousands of lives among the civilian population and the Allied soldiers. Colonel Russell stated:

Effects of German Sabotage

"In the Fontaine Marshes and the Agro Romano areas, malaria rates have been higher than for many years. This has been directly due to German sabotage with consequent flooding of the reclaimed marsh areas. The season of maximum malaria-mosquito breeding had arrived before the area could be entered by the ACC. Mines, booty traps, lack of transport, complete disruption of civil organization, the return of infected refugees, the destruction of screening, these and other factors have made it impossible to carry out more than palliative measures."

However, by September 1, several thousand hectares of land had been drained, airplane larviciding was being done at Ostia and Terracina, tons of Paris green dusted, and over five million atabrine tablets distributed.

"The situation, bad as it had been, might have been infinitely worse, with complete paralysis of civilian reconstruction activity and serious malaria in Rome itself."

In a report to the ACC covering the nine-month period beginning January 1, Colonel Russell stated:

"The results of the intensive malaria-control program of ACC correlated with military malaria control have kept this disease effectively in check in Sicily, Sardinia, and southern Italy (below the Fontaine areas), although the malaria potential was much greater than normal."

Examples of how well the ACC malaria program operated were Sardinia

51
file 088

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In a report to the ACC covering the nine-month period beginning January 1, Colonel Russel stated:

"The results of the intensive malaria-control program of ACC correlated with military malaria control have kept this disease effectively in check in Sicily, Sardinia, and southern Italy (below the Pontine area), although the malaria potential was much greater than normal."

Examples of how well the ACC malaria program operated were Sardinia and Foglia, where the incidence of malaria has been from one-third to one-half that of 1943.

No civilian in liberated Italy suffering from malaria in 1944 went untreated because of the lack of specific medicines. More than 11,000,000 atabrine tablets from the United States were made available to civilians through the U.S. Army's Medical Supply Branch in cooperation with ACC's Malaria Control Branch. In addition, 125,000 ampoules of quinine were set aside for civilian use. This supply was augmented by drugs captured from the Germans and by moderate amount of quinine and italcinina remaining to local authorities from 1943.

With the aid of the Italian Government in liberated Italy, the drug supplies were made available to every provincial capital south of the battle-line. The civilian government cooperated in cleaning and redigging 2,000,000 meters

of canals, draining 20,000 hectares of flooded land, repairing or replacing 15 pumps units, applying 20 tons of Paris green, and applying 200,000 gallons of oil.

Colonel Russell reported that the Germans turned the clock back 60 years for the Italian people when they deliberately sabotaged the extensive reclamation projects begun in 1887. The report to the ACC declared:

"One of the great tragedies of the war has been the systematic destruction by the German Army of the great land reclamation projects or 'bonifiche' of Italy. Not only has this smashing of pumps, blocking and mining of canals, and deliberate reverse diversion of sea and river water greatly increased the breeding of anopheles malaria mosquitoes. It has also driven from their homes thousands of peasants; has flooded thousands of acres of farm land, and has set back disastrously the economy of vast areas. The area of farm land in south Italy flooded by the Germans is estimated at 37,000 hectares, or 98,000 acres. This figure includes only the areas south of Rome.

"This wanton destruction did not hamper Allied transport, but it dealt a terrible blow to the Italian peasants and it increased the malaria potential enormously. It is an exaggeration to say that in some areas, as in the Agro Romano, the appearance of the land when the Germans were driven back was what it had been in 1880 before the earliest advances in land reclamation had been made".

Colonel Russell paid tribute to the soundness of Italian engineering in the land reclamation projects which made the speedy action, stimulated by the ACC, more effective in achieving considerable salvage. "But complete recovery must await pumps not now available in Italy. It will then take some years for the land to sweeten again".

(UNN)

6345

driven from their homes thousands of peasants; has flooded thousands of acres of farm land, and has set back disastrously the economy of vast areas. The area of farm land in south Italy flooded by the Germans is estimated at 37,000 hectares, or 93,000 acres. This figure includes only the areas south of Rome.

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(UNN)

6345

RESTRICTED

Tel: 489081

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

BWW/lam

ACC/088/PWU

20 September 1944

SUBJECT: Request for "Cover" of Bonifiche Works

TO : Mediterranean Photographic Intelligence Centre
HQ, MAAF Intelligence Section
c/o M.A.P.R.W. - A.P.C. 520

1. Reference your letter MPIC/43 of 14 Sept. 1944
2. We fully appreciate the observations in your para. 2 and we generally endorse the suggestion in your para. 3, viz. that photographs of the principal lock gates, pumping stations etc. on the main waterways of N. Italy, as soon as they have fallen into Allied hands, would largely meet our requirements. However, to "lock gates, pumping stations, etc." we desire to add also "breaches in river embankments".
3. We enclose a copy of plan I.S.T.D./K/391, which shows (cross-hatched) the greatest area that could be deliberately inundated. This is, of course, the area with which we are most concerned.
4. If you can furnish us with photographs as defined in para 2. above, with particular reference to the rivers Po and Adige, they will undoubtedly be of great help to us.
5. Regarding para. 4 of your letter, we thank you for the action that you are taking to furnish this Sub-Commission with photographs of damaged Aircraft Factories and Ship building Yards.

Enclosure: Plan I.S.T.D./K/391
Copy to File 159

G. S. RHODES
Lieut-Colonel, R.E.
Deputy Director

See File 52.

17 SEP Recd 08^h 00^m P W & U

MEDITERRANEAN PHOTOGRAPHIC INTELLIGENCE CENTRE,
H.Q., M.A.A.F. INTELLIGENCE SECTION,
c/o M.A.P.R.W. APO. 520.

JRW/s.

14th September 1944.

Ref : MPIC/13.

Subject : Request for Cover of
Bonifiche Works.

To : H.Q., Allied Control Commission.,
Public Works and Utilities,
Sub-Commission, APO. 394.

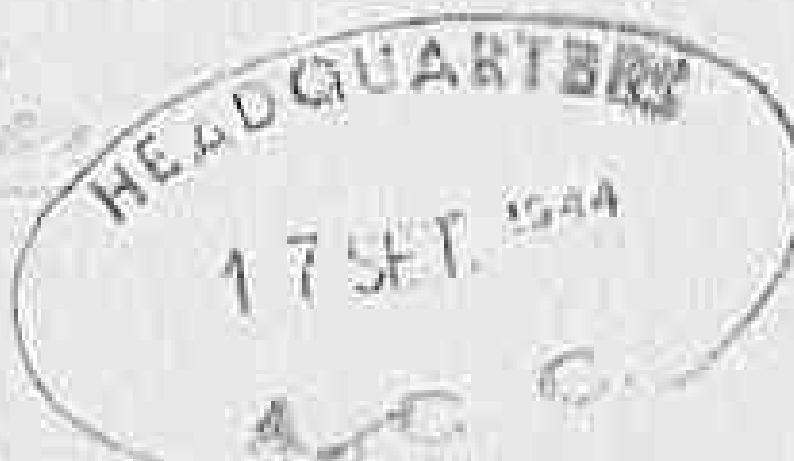
1. Reference is made to your letter ACC/OFF/PWN which has been forwarded to this Centre by H.Q., M.A.A.F. for action.

2. Your request covers such large areas and so many sories that thousands of prints would be required to satisfy a once-over cover of the areas shaded by you, that it is not, in its present form, a practical proposition for the Reconnaissance Wing. It will be appreciated that the operational requirements of the Armies and Air Forces must be given precedence over requests such as yours.

3. Your map is returned herewith. May your requirements be reviewed in the light of the above and be re-submitted? It is suggested that photographs of the principal lock-gates, pumping stations etc of the main waterways of N. Italy, as soon as they have fallen into Allied hands would meet 90% of your requirements.

4. Your request for photographs of damaged Aircraft Factories and Shipbuilding Yards has been put into hand and will be despatched in the course of the next few days. It is taken for granted that you are interested only in those located in Italy.

Enclosures.



J.R. WATSON.
Wing Commander,
Officer i/c M.P.I.C.

Major Westwood

6348

18/9.

14 SEP Recd

*088
let.*

HEADQUARTERS
MEDITERRANEAN ALLIED AIR FORCES
APO 650

D-HIS-1w

MAAF/S.6655/Int.

10 September 1944

SUBJECT: Flooded Areas (Reclamation Works)

TO : Headquarters, Allied Control Commission, Public Works and
Utilities Sub-Commission, APO 394 (Att: Lt. Col. G.E. Rhodes)

1. Your letter ACC/088/PWU, 1 Sept. 1944 has been referred to the
Mediterranean Photo Intelligence Center, c/o Mediterranean Allied Photo
Reconnaissance Wing.

2. As MPIC determines priority for flying necessary cover required
by air, ground or naval forces within the theater, it is suggested that your
representative take the matter up with them rather than direct with 90th Photo
Reconnaissance Wing.

CC - MPIC

*Let Col Rhodes
14/9
528
18/9*

R.G. Storey
R. G. STOREY
Colonel, GSC,
Executive,
Intelligence Section.

6342

12 SEP Recd
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ces.

MAAF/S.6655/Int.

1st Ind.

(D-RGS/ejs)

HEADQUARTERS, MEDITERRANEAN ALLIED AIR FORCES, APO 650, 7 Sept. 1944.

HQ, Allied Control Commission, Public Works & Utilities Sub-Commission,
APO 394. (Attn: Lt. Col. G. E. RHODES, Deputy Director).

1. It is very probable that 90th Photo Reconnaissance Wing at San Severo can furnish many of the photographs now in existence and that may be taken from time to time.
2. It is suggested that one of your representatives go to the 90th Photo Reconnaissance Wing and ascertain the photographs available and arrange for copies of future photographs of the areas involved. However, because of pressing tactical missions, it is very likely that no special missions can be flown at this time which are not included in regular Photo Reconnaissance flights.
3. After the areas are captured it is very probable that special photo Reconnaissance missions may be provided for on a lower priority.

R. G. Storey
R. G. STOREY,
Colonel, GSC,
Executive, Intelligence.

Encls: Map withdrawn.

~~Director~~~~To act~~~~but we should act as in~~~~Let Col. Gapper (2) above -~~

~~Pls have Maj. Westwood follow up. We were trying to get photos on conditions of Romigiches, if that is possible.~~

~~GEB~~~~12) 6341~~~~Maj Westwood~~

Arrangement with
Maj. Westwood
soon. Col. Gapper
1944

12/9
12/9

Tel. 489081

HEA DQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

48
GER/ee

ACC/088/PWU

1 Sept 44

SUBJECT: Flooded Areas (Reclamation Works)

TO : HQ. M.A.A.F., C.M.F.

1. I attach herewith copy of a letter ACC/088/PWU- 21st Aug. that was addressed to the Air Force S.G. of the A.C.C. I also enclose a copy of the map referred to in that letter.
2. The Air Force S.G., in reply, inform us that the matter should be dealt with by you, probably by your photographic Reconnaissance Section.
3. Kindly acknowledge this letter, with its enclosure, and let us know whether you can take any action.

GER

G.E. RHODES,
Lt. Colonel, R.E.,
Deputy Director.

Enclosures:

- A) copy of a letter ACC/088/PWU
21 August 44,
- B) Map referred to.

~~Director~~~~To see~~~~Send Reminder~~

6340

GER

4/9.

25 AUG 1944

088 CCB

Yili

47

From : Air Forces Sub Commission, ACC. Rome

To : Public Works & Utilities Sub Commission,
HQ. ACC. ✓

Date : 23rd August 1944

REF. : AFSC/R/330/okg

PUBLIC WORKS (AGRIC. & ANTI - MALARIA)

46

Receipt is acknowledged of letter ACC/088/WH dated 21st August 1944.

2. It is suggested that the best course to pursue would be to write direct to HQ. M.A.A.P. C.M.P. marking the letter for the attention of the Photographic ie Reconnaissance Section.

3. The Italian Air Force unfortunately has not offices necessary aircraft & equipment to carry out such a mission.

Lt Col Rhodes

Will you please handle

25/8

J. W. S. G. L.

J. W. S. G. L.

AIR VICE MARSHAL,

AIR SERVICE COMMANDING

Please get back

Re may not

part to them,

8 6334.14

draft
letter

55R.

26/8

Tel: 489081

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

GER/tr

ACC/OB8/PWU

21 Aug, 44

SUBJECT : Bonifiche Works (Agric. & Anti-malaria).

TO : Air Force S.C.

1. At a conference on 14 Aug in the Exec. Directors Office with representatives from

Agriculture S.C.
Economic Section S.C.
Public Health S.C.
Finance S.C.
Legal S.C.
Public Works S.C.

it was disclosed that the above problem is likely to be far greater in extent and in complexity than was presented by the Pontine Marshes, viz. in N.E. Italy over wide areas, as shown on the map enclosed.

2. It is expected that the enemy will wreck water - pumping stations (for land-drainage), embankments, bridges etc., may block canals, and may take all steps to promote extensive flooding .

3. Is it possible to get a series of air photographs from time to time, showing what the position is, so that this S.C. may have an indication of the problems to be faced?

Enclos: Map referred to

GER

G.E. RHODES
Lt. Colonel, 6338
Deputy Director .

Copy to file 159

B/F 31/8

Tel. 489081

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

HWW/cs

ACC/OSP/PWU

10 Aug 44

SUBJECT: Malaria.

TO : HQ. A.C.C., Public Relations Branch
(through Economic Section)

1. We desire to draw your attention to the following extracts from "Trend of Correspondents' Copy", which appear difficult to reconcile :-

- 26 July 1944. BROWN (Reuters) : -

4 1/2 tons of quinine, enough for Italy's entire population for a whole year, have been discovered by AMG officers of the 5th Army in the small town of Volterra. The major portion will be distributed for civilian use in malarial areas.

- 5 Aug 1944. COLE (Blue Network) : -

Owing to the flooding of the Pontine Marshes and the shortage of quinine the first cases of pernicious malaria have been reported in Rome.

- 7 Aug. 1944. GEORGE MOCPAD (CBS) : -

..... Pernicious malaria has re-appeared (in Rome) for the first time in many years, but there is no quinine.....

G.E. RICHES,
Lieut-Colonel, R.E.,
Deputy Director.

6337

Copy to: Public Health Sub-Commission
(for information of
Malaria Control Div.)

REAR HEADQUARTERS
ALLIED CONTROL COMMISSION
APO 394
Public Health Sub-Commission

ACC/3005/PH

1 June 1944

SUBJECT: - Malaria Control.

TO : - Director, Public Works and Utilities Sub-Commission.

1. The Public Health Sub-Commission wishes to express to you, Lt. Col. Rhodes and all your officers, its appreciation of the assistance you have rendered in the all important task of Malaria Control.

2. The promptitude with which pumping stations have been put into operation in marshy and flooded areas has been a tremendous contribution towards the work of the Malaria Control Branch.

For Brigadier G. S. PARKINSON:

G. M. FRIZZELL, Lt. Colonel
Chief, Public Health Branch

PH/GMF/ja

Copy to: Col. Paul F. Russell, Chief, Malaria Control Branch,
P.H. Sub-Commission, ACC Main HQ.

P Works

9358

2 JUN Recd

088
Rlw.

30

Should a copy
(all 4) go to Economic
Section?

for Main records?

Feb.

21/6

G. M. FRIZZELL Lt. Col.

Lt. Col. Rhodes
Copper

Please note file
contains dark
clouds do have
a silver lining
H. J. 2/6

6336

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

GER/ecb

23

ACC/088/PWU

22 May 44.

Subject: Malaria Control.

To : Headquarters, Region IV,
att: Public Works Officer.

1. I attach copy of a letter ACC/A-3-1/MC, dated 18 May on above subject.
2. It is understood that Lt.-Col. Findlay has been studying the question.
Can you let me have a copy of his report.

GER.

G.E. RHODES,
Lieut-Colonel, R.E.,
Deputy Director.

Enclos: Copy letter from Chief, Malaria Control Branch.

6335

I/F 28/5

18 May 1944
088
Res
72

ACC/A-3-1/MC 1st Ind. PFR/nee
HEADQUARTERS, ALLIED CONTROL COMMISSION, PUBLIC HEALTH SUB-
COMMISSION, MALARIA CONTROL BRANCH, APO 394, 18 May 1944.

TO: Director, Public Works and Utilities Sub-Commission, HC.,
Allied Control Commission, APO 394.

attached

1. Concur with suggestion in paragraph 3, basic commun-
ication, that the Malaria Control Branch arrange for future
conferences regarding malaria control drainage problems.
2. Please inform when you believe the time is right
for discussion of the Pontine Marsh situation.
3. Have you any information regarding probable condi-
tions on the East Coast, north of the present line?

Russell
PAUL F. RUSSELL
Colonel, M. C.
Chief, Malaria Control Branch.

(On return)

W. Col. Jimmy

To see Col. Russell
called yesterday - he much
appreciates our actions, up to
date - & regretted that
Reg. 3 P.H. officer had written
to us - in the stream
he did. 6334

Letter sent Reg. 3
on 22/5

2. As to (3) above - W. Col.
Finblay - Reg. 3 - has been
doing a study. We should
ask to see it. 45R

17 MAY Recd

088
H. Ab
20

1st Ind. PFR/nee
HEADQUARTERS, ALLIED CONTROL COMMISSION, PUBLIC HEALTH SUB-
COMMISSION, MALARIA CONTROL BRANCH, APO 394, 17 May 1944.

TO: Deputy Director, Public Works and Utilities Sub-Com-
mission, Headquarters, Allied Control Commission,
APO 394.

1. Reference report by Captain Saul on road bridges
over the Regi Lagni Canal System. I am in full agreement
with his suggestions.

2. Captain Saul's report, two map plans, and the pencil
note by Lieut. Colonel Thompson are returned herewith.

P. F. Russell
PAUL F. RUSSELL
Colonel, M. C.
Chief, Malaria Control Branch.

3 Encls: No change.

Lt. Col. Thompson

To see
go ahead. (3 Minor Works).

2. Col. Russell called 6333
see me today. He fully
agrees with what we have done,
& propose to do. (He says
not agree with Reg. 3 P.H.
official letter. which you will see
in file).

19 May 44.

3: These papers to go to Mal. Control
file - after you have
seen them. GER.
17/5.

REPORT ON ROAD BRIDGES OVER CANALS(see Plan) + Section
accompanying.(1) Candelio Bridge Cancellio-Naples Road.

Single canal above road. Max. flow 3 cu. M./sec. from springs does not increase much with rain. Normal flow about 2 cu. M./sec. Also water from old aqueduct (broken) turned into canal which ^{joins another 2 km below road} ~~become two canals below road~~.

Bridge broken by Germans replaced by 5 old iron pipe under fill.

Recommendations The pipes almost take full flow but cause loss of head of 12"-18" above. For risk of flooding the present pipes are adequate but to reduce ponding for mosquitoes one or more extra pipes are required. This can be done in 2-3 days by closing Half of road to traffic at a time. Traffic not dense. New bridge unnecessary.

Suggest that this be done. Authorisation Required

(2) Villa Nova Bridge Good arch on south canal but centre northern canal blocked.

Channel is being cut to turn all water into south canal above bridge, another to redistribute water below. This will be completed by time of receipt of this report. No action required.

(3) Ponte Napoli North centre canals have good arches but the south one has only a pipe. The interconnection below the bridge above (2) will relieve pressure on pipes in time of flood.

Nothing required to be done

(4) Ponte Casolla All three bridges have been blown ⁶³³² replaced by one wooden box ^{cut} ~~wide~~ 70 cm. x 70 cm. in each case. These are barely sufficient to cope with any winter flow. Maximum flood from catchment area is estimated by Genie

Civil as 5cu. M./sec. on each side canal 18cu. M./sec. on central canal or if they were connected. Say 20cu. M./sec. for all three. At say 6' head these culverts combined would only take 5cu. M./sec. so that there is risk of serious flooding above although they got through last winter. *At present they are nearly dry as they are above*

Required From the point of view of mosquitoes probably nothing. From the point of flooding next winter or subsequently one new bridge on centre channel the other two being interconnected with it above & below. Small diversion temporary bridge over centre canal required while new bridge is being built. Traffic on this road is not very heavy.

It should be considered whether this work is necessary now, before winter or be postponed.

(5) Ponte Epitaffio South bridge on Route 87. Good arches on north & south canals. Centre bridge blown, replaced by five 12" pipes. There is definite loss of head here in flood but not serious. Centre canal ^{could if required be} is now being connected to south canal above & below ^{road} round. Two men will be permanently stationed keep pipes clear of Weeds.

No action required.

(6) Ponte Carbonara Good arches on south & north canals, centre canal bridge blown, replaced by three 24" pipes. South canal goes direct to heap rotting ponds below road reconnects to centre canal below. All canals interconnected 100 M. above road but by small channels. There is some loss of head under road on centre canal which owing to small size of culvert connecting it to north canal is at a slightly higher level. This can be remedied by cutting an additional channel but the present arrangement seems to be sufficient.

6331

No action required.

(7) Ponte Rotto Good arches on north south canals.

Centre bridge blown replaced by pipe at too high a level.

One side arch of centre bridge remains but is silted up ~~and filled with debris~~ ~~filled arch with debris~~.

Excavation of this was commenced but it was found that it was ^{at} badly cracked damaged crown by explosion wrecking other arches. Excavation has therefore ceased. Water has been diverted by interconnecting with south canal above ^{at} below bridge.

Required The damaged arch should be repaired from point of view of traffic quite apart from canal flow. This can be done by closing half road to traffic at a time. The traffic from Prattamaggiore to Marcianise consists mostly of country carts diverted from Route 87, only local military traffic so that closing road presents no difficulties. The work can be put in hand at once by Genie Civil.

Authorisation required

(8) Ponte Selice Route 7b Good arch on northern canal. Centre ^{at} south canals completely blocked at road, empty below.

Canals have already been connected above the road but these connections are not in line ^{at} can be improved.

At present all water below road goes by northern canal but canals are reconnected about 1 Km. down stream.

North canal below road is at slightly lower level than other two so that it remains to be seen whether it would be advantageous to reconnect them below road.

This is being investigated will be done if advantageous.

No action required

A. G. S. 383
Capt
13 May 46

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

12
GER/mc

ACC/088/PWU

16 May 1944

Subject: Anti-Malarial Control - Works proposed.

To : Chief of Malaria Control Branch
Attention Col. Paul F. Russell

1. I send attached in original (please return) a pencil note by Lt.Col. Thompson, a report by Capt. Saul and two plans.
2. Please let me have your observations arising out of the projects proposed.
3. You may wish to consult the Regional Public Health officer Region IV (Col. Crichton) with reference to his letter PHW/25/54 of 9 May to this Sub-Commission.

See reply 17/5.

GER -

Encl.: 1 Pencil note dated 15 May. G.E. RHODES, 6329
2 Capt. Saul's Report
3 Plans.
Lt.-Col. R.E.,
Deputy Director.

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

GEF/ccb
11

12 May 44.

ACC/088/PWU

Subject: Anti Malaria Campaign.

To : Chief, Malaria Control Branch, (Col. Paul F. Russell).

1. The letter 9 May from Col. W.H. Crichton has since been fully discussed with him. A copy was sent to you.
2. The position appears to be that:
 - (a) Many interests are concerned and this Sub-Commission does not yet know them all.
 - (b) Some of them have been active already, and have tentative programmes of work ahead.
 - (c) Engineering aspects are important, but they are only a part of the larger whole.
3. Having regard to these points, it is suggested that any future meetings or conferences should, if you concur, be arranged by you.

6328

L.A. JERRY.
Lt.-Col., C.E.,
Director.

✓ 605-695 ^{08/10}

HEADQUARTERS
REGION 3, ALLIED CONTROL COMMISSION
APO 394, U.S. ARMY

WEC/jig

FW/25/54

SUBJECT: Anti-Malaria Campaign.

TO : HQ, ACC, Public Works & Utilities Sub-Commission
(Att: Lt. Col. G. E. Rhodes).

Army
- 100000
Date 9.5.44
on 2 (100000)
Utilities Sub-Commission
(100000).

Ref. your No. ACC/088/PWU dated 7/5/44 forwarding a copy of the minutes of a meeting held in your office on 5th May on the Engineering aspects of the Anti-Malaria Campaign.

1. May I suggest in the first place that communications such as the one under reference should please be addressed to this Office for attention by the Regional Public Health & Welfare Officer.
2. It would be appreciated if notice of such meetings is also given to the R.P.H.O. and not to an individual officer of his staff.
3. This office has taken a great deal of trouble during the past months in re-organizing the Anti-Malaria work in this Province and particularly in making the Medico Provinciale the official responsible for co-ordinating and directing the work of the various civilian interests concerned, constituted as the Provincial Malaria Committee. It is noted that the Medico Provinciale was not present at the meeting convened by your office but that representatives of individual interests were there. This is contrary to the policy laid down to make the latter responsible to the former and is likely to disrupt the arrangements already made. It is requested therefore, that in any future approaches to the problem of local Malaria Control, this office be given the opportunity of advising on local representation.

4. Another notable omission appears to have been Lt. Col. Hensley, Director of Public Works & Utilities Section, who has done a great deal of very useful work in connection with pumping etc.

Ref. your No. ACC/088/PWU dated 7/5/44 forwarding a copy of the minutes of a meeting held in your office on 5th May on the Engineering aspects of the Anti-Malaria Campaign.

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4. Another notable omission appears to have been Lt. Col. Hensley, Director of Public Works & Utilities Section, who has done a great deal of very useful work in connection with pumping etc.

5. Finally, it is not correct that the Malaria Branch of this office has an Engineer Officer assigned to it. Capt Hill probably referred to a Sanitary Officer who is fully occupied on other but equally important duties in Naples City.

W. H. Crighton
 W. H. CRIGHTON
 Colonel
 Regional Public Health Officer.

Copy for information to:
 Col. P.F. Russell
 Capt. S. O. Hill

HEADQUARTERS
 10 MAY 1944
 A. C. C.

10 May 44
 79

HEADQUARTERS
MALARIA CONTROL COMMISSION
Public Works and Utilities Sub-Commission
AEC 394

AEC/ess

AEC/ess/PW

7 May 44.

Subject: Anti-Malarial Control (Engineering Works).

To : Col. Paul E. Russell, Chief Medical Officer,
Malaria Control Branch,
Public Health Sub-Commission.

I enclose copy of minutes of Conference, held at this office on Friday,
5 May 44, for your information.

GER
C. E. Russell,
Lieut-Colonel, R.S.,
Deputy Director.

Copy to: Agricultural Sub-Commission (att. Capt. Cobb),
R.S., Region III (att. Capt. Hill),
Economic Section.

6326

Anti-Malarial Control (Engineering Works).

1. A conference was held on Friday 5 May at this Sub-Commission office. I had already seen Colonel Russell, of the Malarial Control Branch.

2. The following were present :-

Lt. Col. Rhodes			
Lt. Col. Lapper			
Lt. Col. Thompson			
Capt. Cobb			
Capt. Hill			
		Agriculture S.C.	A.C.C.
		Region III. Malarial Control	
		(Entomologist)	
		Genio Civile	
		"	
		(Eng.) Consorzi Bonifica	
		Genio Civile	Italian
		Consorzi Bonifica	Officials.
		"	
		"	

Sig. Pugliese	
Sig. Vieno	
Sig. Greco	
Sig. Sbrigiolo	
Doctor Feraro	
Doctor Galloro	

3. Following a lengthy discussion the following principal points emerged,

(a) There are 6 or 7 pumping stations for land drainage between Naples and the Volturno that were put out of action, all of which have presented engineering questions. They raise large volumes of water but only by 2 or 3 metres, and pump it out into the sea; without these pumps large areas of land remain flooded. There will be similar and more serious problems North of the Volturno and Garigliano.

(b) There are mechanical and electrical problems, and parts are wanted at 2 or 3 of these pumping stations. Others are still awaiting electricity supplies.

(c) The Armies are spraying oil on the water, and will continue to do so, so long as the health of the troops demands it. Spraying by hand, or from aeroplanes. About 700 gallons sometimes used daily. This can be saved if the lands are drained and dried.

(d) Water-courses inland at various places are blocked by bridge and other debris, causing stagnant water, and consequent malarial breeding places. Agricultural aspects are important everywhere.

4. Agreed, finally, that Lt. Col. Lapper will see to the mechanical and electrical side of the problem at once, either through P.B.S. Engineers (or, directly, by one of his own staff). Lt. Col. Thompson, as to the waterways problems, will instruct his officers at Caserta to take immediate action.

5. Arrangements in the preceding paragraph to be closely coordinated with Capt. Hill and Cobb. For any inspection required Capt. Cobb knows the Italian Engineers responsible, and will see that they are present.

6. I told Capt. Hill that since his malarial Branch has an Engineer-Officer

Sig.	Pugliese ✓	Genio Civile	} Italian Officials.
Sig.	Vieno	"	
Sig.	Greco	(Eng.) Consorzi Bonifica	
Sig.	Sbrigiolo	Genio Civile	
Doctor	Feraro	Consorzi Bonifica	
Doctor	Calloro	"	}
		"	

5. Following a lengthy discussion the following principal points emerged,

- (a) There are 6 or 7 pumping stations for land drainage between Naples and the Volturmo that were put out of action, all of which have presented engineering questions. They raise large volumes of water but only by 2 or 3 metres, and pump it out into the sea; without these pumps large areas of land remain flooded. There will be similar and more serious problems North of the Volturmo and Garigliano.
- (b) There are mechanical and electrical problems, and parts are wanted at 2 or 3 of these pumping stations. Others are still awaiting electricity supplies.
- (c) The Armies are spraying oil on the water, and will continue to do so, so long as the health of the troops demands it. Spraying by hand, or from aeroplanes. About 700 gallons sometimes used daily. This can be saved if the lands are drained and dried.
- (d) Water-courses inland at various places are blocked by bridge and other debris, causing stagnant water, and consequent malarial breeding places. Agricultural aspects are important everywhere.

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5. Arrangements in the preceding paragraph to be closely coordinated with Capt. Hill and Cobb. For any inspection required Capt. Cobb knows the Italian Engineers responsible, and will see that they are present.

6. I told Capt. Hill that since his malarial Branch has an Engineer Officer attached to it I thought he ought to assist. The reply was that the Officer is so busy, that he cannot be spared for these particular duties. (This seemed to me to be a poor reply, and I shall take it up with Colonel Russell).

7. I take it that the Italian Government will be debited, in due course, with the cost of any machinery, spares etc which may be furnished. And as to the waterways clearances, the Genio Civile will have to pay the bills themselves.

8. The Directive /231/35/CA¹ of 25/4/44 is the authority for any action we may take, and it was on receipt of it that the conference was arranged.

(4)

Capt. Lapper.

G.E.R.

5/5.

Many electrical matters
Refer to Lt Col Booley P.B.S.
who handles matters in land.
G.E. RHODES, Lt. Col. R.E.
Deputy Director.

W.S.L.

= 2 =

Distribution

- 1 Copy to Colonel P.F. Russell Malaria Control Branch
- 1 " " Agriculture S.C. (Attention Capt. Cobb).
- 1 " " Region III. (Attention Capt. Hill).
- 1 " " V.P. Economic Section.
- 1 " " Office copy (Lt. Col.s., Lapper and Thompson to see).

(Re - Malaria).

Extract - (News 4) 5 | 44 .PENINSULAR BASE SECTION Public Relations Office. No. 204 4 May 1944.

GERMANS FLOOD PONTINE MARSHES : Allied Headquarters, May 3 - The Germans, apparently fearing resumption of the Allied offensive, have flooded large areas of the Pontine marshes on the southern flank of the Anzio beachhead between Litteria, Sezze, and Terracina. Big patches of fertile land, reclaimed by Mussolini, have been inundated and one of the world's worst malarial plague spots is again breeding mosquitoes. German prisoners taken along the right flank at Anzio report a 'high percentage of malarid' amongst some German units.

6324

Mosquito Control file

EXTRACT FROM CAPTAIN SAUL REPORT.

Canal Bridges.

Met Capt. Cobb, agriculture and Lt. Whorty (A) of Mosquito Control who came in place of Capt. Hill with whom the appointment was made. With them I toured the whole canal banks between Route 37 and 7 Bis. It appears that these canals which are interconnected in places serve the dual purpose of drainage and irrigation, and it is for the latter purpose that they will be principally used in the Summer. To this end they are dammed up at interval, so as to produce the proper water level in the various irrigation ditches and especially the hemp rotting ponds which are connected to the canals. With this in view and the fact that agriculture must presumably continue I can hardly see that a little additional damming up at road crossing will make much difference the main breeding ground for mosquitoes in any case being in the small irrigation ditches and hemp rotting ponds and not the canals themselves.

In event of anything being done at the road crossings this can be done as formerly suggested by interconnecting the canals above and below each road crossing so as to make use of the ample bridges on the side canals for passing of water under the roads and relieve pressure on the pipes in the fill over the central canal when the bridges were blown up by the Germans.

A possibly more serious position arises on Route 7 Bis where the canals have been so connected above but not below the road crossings. Here the Northern canal has an ample bridge but the other two have only pipes buried in the fill at too high a level. The result of this is that below 7 bis the northern canal is running full while the two others are virtually empty with a trickle of water and stagnant shallow pools at the bottom. This is the worst possible condition for mosquitoes and will also deprive the country south of the canals and West of 7bis of irrigation. It is suggested that here at any rate the canals should be connected below the road crossing so as to divide the water evenly between the three canals. All canals are well stocked with small fishes. The question therefore arises whether it is advisable to use oil or might be better to dam up the water and flush down once every few days.

HW Rhodes

for info. Oct 1/5.

6323

2296