

ACC 078/14/PWU

10000/150/84
(NO.1)

MONTHLY
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NOV. 19

10000/150/84
(NO.1)

MONTHLY REPORTS 1944
(MAY-SEPT. 1944);
NOV. 1944 - JAN. 1945

BEST COPY POSSIBLE

HEADQUARTERS ALLIED COM 351.

APC 394

Public Works and Utilities Sub-Commission

BRIEF SUMMARY OF ACTIVITIES DURING DECEMBER 1944

refer to

1.

Political.

The Italian Government crisis at the end of November resulted in the appointment of Sig. Ruffini as Minister of Public Works early in December. This was the fourth change during the year, each bringing with it fresh ideas of organizing or re-organizing the Ministry and the Engineering Service known as the "Genio Civile" working under it. Continuity of policy was repeatedly broken, slowing down progress and adding to the difficulties of the Sub-Commission's work. The latter endeavored to act as a stabilizing influence, with some success here and there, but at the end of the month the Director General, a permanent official corresponding to the rank of Chief Engineer, was summarily dismissed under certain Defascistization Decrees ("Epurazione") in contravention of Allied Commission's orders. His appointment was a "key" one and he was later re-instated, again under the Commission's orders.

2.

Extended Powers, Public Works (Italian Government).

In November Much wider powers were accorded the Minister in respect of approving and executing projects of a purely civil character, irrespective of estimated cost, provided no imported (Allied) materials were required. The Government had already been given authority to control all locally produced (Italian) critical materials. Up to the end of December it was not possible to say whether these powers were being properly exercised or not, but the position is being carefully observed through the Sub-Commission's Regional Engineers, from Umbria to Onabria, and Palermo.

3.

Genio Civile (Organization and Salaries).

The number of qualified and experienced Italian engineers remains, in general, far below that required to cope with the vast repairs and reconstruction programmes facing the Government. Having regard to the present purchasing power of the lire salaries offered are deplorably inadequate, often below the wages of a semi-skilled workman. Successive Ministers have

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The number of qualified and experienced Italian engineers remains, in general, far below that required to cope with the vast repairs and reconstruction programmes facing the Government. Having regard to the present purchasing power of the Lire salaries offered are deplorably inadequate, often below the wages of a semi-skilled workman. Successive Ministers have failed to improve matters, and a present expedient is the unfortunate one of a single individual holding at times more than one appointment, and drawing a double or triple salary. Alternatively, fees are being paid to certain whole-time professional men, as to a Consulting Engineer in private practice, based on plans and estimates prepared. The only judge of those plans is often the man himself, and abuses will surely creep in. The Minister has been warned of the inherent dangers of these practices.

4. Defascism.

The Sub-Commission continued to press the Minister to expedite both his prima-facie investigations and his submission ²⁸²cases

2.

to the Epuration Commission, particularly related to the four higher grades of Officials. Under Allied Commission orders the whole process is being speeded up, on a time-table up to the end of April. In the four grades, 6 had been removed out of a total of 11 by the end of December, following investigations. Covering all the 9 grades, the Commission had dealt with 149 cases out of 146.

5. Withdrawal of Allied Personnel.

In Sardinia all Public Works control since September has been in the hands of the Genio Civile, subject to the Regional Commissioner who complains that the "Capo" (Chief Engineer) has been absent since early November. At the end of December the Sub-Commission's Calabrian representative was withdrawn, and early in 1945 the same may happen in Sicily. Such officers are being transferred to Regional Engineers' staffs in Central or Northern Italy, where required.

6.

Military Works. Public Works (Civil) Highways & Bridges etc.

At the special request of the Chief Engineer, A.P.H.Q., the Sub-Commission assumed responsibility for all roads and bridges (Military Lines of Communication) as far North as Leghorn. Every item of contractors' plant is being mobilised, to the maximum, even down to horse and oxen-drawn transport.

During the month an important conference was held, convened by the Chief Engineer No.1 District, which settled organisational details relating to roads and bridges generally, and the precise further tasks of the Sub-Commission.

Ten special inspections were made of all Military routes between Naples, Rome, Leghorn and Florence.

A small part of the 4,000 tons of heavy (engineering and structural) equipment, indentured for in March 1944, was due to arrive from America. Transport items were, unfortunately, not included in the consignment.

Portable bridges (Bailey type) were removed at 6 out of 7 sites South of Rome, allowing them to be taken North, on replacement by more permanent structures.

North of Rome, 25 large bridges will shortly begin, with similar releases.

The transport position (for materials) has deteriorated still further.

At the end of December the following were in progress:-

(a) Projects of Military Priority

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(a) <u>Projects of Military priority</u>		<u>Number</u>	<u>Value (Lire)</u>
Highways			
Bridges		175	590,000,000
		236	414,000,000
(b) <u>Other Projects (A.O. approval)</u>			
Miscellaneous		699	663,000,000
(c) <u>Do. Do. (Italian responsibility)</u>			
Miscellaneous		673	871,000,000
(d) <u>Bridges rebuilt to date</u>		736	
(e) <u>Roads under maintenance</u>		6,000 Km.	291

3.

The Chief Engineer No.3 District issued an important circular on 12th December defining the whole organization and policy governing highways and bridges, required by the Armies on Lines of Communication, and the precise duties of this Sub-Commission.

7. Housing.

The "Gazzetta Ufficiale" published an important Decree on 12th December, but this is only one step towards a proper organization, including the establishment of Advisory Committees in Communes, financing, materials supplies, and supervision. Tours of inspection were made to get first-hand information in certain devastated areas. After months of delay, it seems that the new Minister is now likely to make some progress.

8. Electrical Division.

By the end of December 2,000 Kms. of transmission lines had been restored to service in Central Italy, and a further 21,000 KW of hydro-electric generating plant. Plans are in hand extending to beyond Bologna, with links to the East and West Coasts. A "master control" station is being established in Rome to regulate output, loading of transmission lines, maintenance of standard voltages, and frequencies at a fixed figure (45 cycles). This is a major change of policy and practice, involving the "pooling" of resources and acceptance of unified control, in a way that has never before been attempted in Italy. The Electrical Reconstruction Committee, of which the Chief Engineer A.F.H.Q. is Chairman, has approved the change, leaving all details to be worked out by this Sub-Commission. By June 1945 it is expected that 300,000 KW of plant will be in operation, in contrast with June 1944 when the figure was only 50,000 KW. The larger figure will still be only one-third, or less, of normal requirements. Power allocations, as they now stand, will not be increased until additional output is definitely available (Terni and Rome areas). Insulating materials and transformers parts began to arrive, in small quantities. Rome now has about 30% of its normal supply of electricity, as against only 17% when the City was occupied in June.

A Liaison officer (electrical) representing the Ministry of Public Works now has offices along with those of the Sub-Commission, and the Italian Govt. will henceforward deal with applications from Power Companies for financial assistance.

9. Utility Companies (rates and charges).

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9. Utility Companies (rates and charges).

Adjustment of charges, consequent of devaluation in the Lire value and other war conditions, has been handed over to the Ministry of Public Works and 23 applications were received in December (gas, water, and electricity Companies). The Sub-Commission still retains certain responsibilities, ~~200~~ ²⁰⁰ative through the "Price Group".

10. Ports (sunken ships).

Many months have been spent in deciding on whom the responsibility for this should fall, and at the end of December the Navy S.C.

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stated, again, that no action should be taken by the Allied Commission pending advice from the C. in C. Mediterranean. The Ministry of Public Works had always been willing to take over the work, as it did prior to the War. The continued delay is unfortunate.

11.

Mines clearance.

The Germans left behind them about 3,000,000 mines; a constant menace to all reconstruction work since the greater proportion of them were laid close to bridges, roads, power and pumping-stations, transmission line pylons, and numerous other structures. The new (Italian Govt.) organisation for clearing them is now beginning operations, and on their progress will depend the speed of many repair and reconstruction schemes in which this Sub-Commission is directly interested.

12.

Regional Engineers.

Each of the 10 Regions has a Regional Engineer, in some cases a Major or Lt. Colonel of the Royal Engineers (Er.), of the Corps of Engineers (Am.), or other officer with engineering qualifications and training. Covering work done during the later months of 1944 a conference was held in Rome (early in January), this being the 4th in 6 months. The following matters amongst others were discussed, and decisions reached:-

Projects required by Navies (priorities)

Increased powers of Italian Govt. (Press publicity)

Pay and organisation of Genio Civile

Transport difficulties

Failure of Italian Govt. to provide funds (works already approved)

Do. Do. to set up a materials control system.

Mines clearance problems.

Unregulated blocking and "freezing" of materials

Relationship with 8th Army A.M.G. (Public Works)

Release of Bailey bridges (to forward areas)

"Bonifiche" progress (Land reclamation, anti-malaria etc.)

Water-supply projects.

Fixing of uniform prices for plant-hire.

13.

Personnel.

At Hdqrs. there were 19 Officers at the end of December, 51 in the Regions, and 3 awaiting assignment; a total of 73. There are 2 Colonels and 7 Lt. Colonels. The Director and Deputy-Director are included amongst the latter and not, as

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Lt.Col.C.E. 289
Director

G.E. RHODES,
Lt.Col.R.E.
Deputy-Director.

16.1.45.

with

Public Works and Utilities Sub-Commission

10 Jan. 1945

BRIEF SUMMARY OF ACTIVITIES DURING DECEMBER, 1944

20
19
18
17
16
15
14
13

SUBJECT	PAGE	PAGE
Italian Government	1	1
Extension of Powers to Italian Government (Public Works)	2	1
Public Civile (Staff Organization and Salaries)	3	2
	4	3
Defascism	5	3
Sardinia, Sicilia, and Calabria	6	4
Highways, Bridges and Public Works	7	8
Road Organization and Policy	8	9
Housing	9	10
Electrical Division	10	11
Utility Companies (Rates and Charges)	11	12
Ports (Sunken Ships)	12	13
Clearance of Mines	13	14
Conference (Regional Engineers)	14	15
Miscellaneous	15	
Personnel		
<u>REGIONAL REPORTS</u>		
Sicilia	16	21
Southern	17	25
Lazio-Umbria	18	30
Abruzzi-Marche	19	37
Emilia	20	43
Toscana	21	45
Italia	22	49
Piemonte and Liguria	23	51
Lombardia		
Venezia		

Gen's Civil (Staff Organization
and Salaries)

Defascism
Sardinia, Sicily, and Calabria
Highways, Bridges and Public Works
Rural Organization and Policy
Housing
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Toscana
Emilia
Piemonte and Liguria
Lombardia
Venetia

16
17
18
19
20
21
22
23

21
25
30
37
43
45
49
51

HEADQUARTERS ALLIED COMMISSION

A20 394

Public Works and Utilities Sub-Commission

10 Jan. 1945

SUMMARY OF ACTIVITIES DURING DECEMBER 1944.1. Italian Government.

Following the re-constitution of the Italian Cabinet at the end of November the office of Minister of Public Works was filled by Sig. Ruini. His predecessor was Sig. Mancini, who had been in office for some months. The first half of 1944 had also seen two Ministers, Signori De Caro and Tarchiani.

During the year, therefore, there were no less than four Ministers with whom the Sub-Commission had successively to maintain close contact. Each of them may have had similar objectives, but each approach to these objectives was, as a rule, quite different from that of the preceding one. These frequent political changes did involve disruption of certain plans, and militated against steady recovery of the Italian Public Works Department (Genio Civile), faced as it was and still is with immense tasks of physical re-construction of every kind of structural and engineering undertaking.

Throughout these changes the Sub-Commission endeavored to act as stabilizing influence, and in this it was assisted by the fact that the Director General of the Ministry, Sig. Tizzano, (corresponding to Chief Engineer) remained in office throughout the year. In the second half of December proceedings were instituted against him "(Epurazione)" resulting in his dismissal. These proceedings had been taken in direct contravention of requests made by the A.C. at its highest levels in November, since Sig. Tizzano was considered to hold an important, and to the Sub-Commission an essential, key appointment. As soon as his dismissal became known drastic action was taken, at the same level, resulting in his immediate reinstatement.

2. Extension of Powers to Italian Government (Public Works)

The extent and nature of this considerable handing-over of powers was explained in para 3. (pages 1 & 2) of the Sub-Commission's November report. Projects of Military necessity, with numerous other things such as

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2. Extension of Powers to Italian Government (Public Works)

The extent and nature of this considerable handing-over of powers was explained in para 3. (pages 1 & 2) of the Sub-Commission's November report. Projects of Military necessity, mainly roads and bridges but with numerous other things such as buildings, pumping stations and power stations would continue to be handled and approved direct by the Sub-Commission. The year 1944 showed that such projects probably accounted 287 between 60% and 70% of the sum total of the Sub-Commission's activities. In November the Minister was given authority to approve and carry out purely civil projects of any type and up to any amount, provided they do not involve the use of critical and imported materials.

At a meeting of Regional Engineers held in Rome early in January opportunity was taken to find out how these powers were being exercised, though it was realised that the short period of about six weeks during which they had been in force might not give a fair indication.

The Regional Engineer, Sicilia, thought that political or ecclesiastical pressure is being brought to bear, directed towards the execution of some secondary and unnecessary repairs and projects; but the evidence is not yet very clear. The Regional Engineer, Southern Region, thought that the public are still being told that the Allies, and particularly the Allied Commission, are responsible for delays in approvals either from the point of view of necessity, engineering design, or finance. As to very many schemes this is no longer true, and it was decided to ask for the assistance of the Public Relations Branch, and probably also Psychological Warfare, so that the general public may be fully informed on this important matter, viz. that the Allies have no further concern with such schemes. The paragraph (mentioned in the November report) also referred to the fact that the Italian Government had taken over responsibility for the control of critical materials (Local Resources). The Regional Engineer, Umbria Lazio stated at the meeting that such organisation as had been set up by the Italian Government, if any, was very far from being in operation even by the end of December.

3. Genio Civile. (Staff Organisation and Salaries.)

Paras. 4 and 5 of the November report dealt with these inter-connected matters, both having been repeatedly referred to in the Sub-Commission's monthly reports during 1944. The Genio Civile, as a Service, offers poor prospects and a deplorably inadequate salary having regard to appreciation in the value of the Lira. The Sub-Commission had pressed on the four successive Ministers during the year the desperate urgency of the matter. Both and all made promises, but nothing was done. In the meantime the Genio Civile needs a very large number of experienced and fully qualified civil engineers, and probably also hydraulic, mechanical, and electrical. To face the tasks ahead it may well be that the total strength, as compared with pre-war conditions, should be doubled or quadrupled; it is impossible to say. Three facts emerge (a) ever-widening powers and responsibilities, already noted, demand more personnel, (b) they are not forthcoming, and (c) Regional Engineers allege that in numerous instances the only way in which the Genio Civile Engineer can legitimately improve his economic position is by an exchange of his professional status for that of a skilled, unskilled, or semi-skilled worker.

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The Sub-Commission has strong reasons to believe that undesirable expedients are being resorted to, such as the holding of dual appointments by the same individual, thus drawing a double salary; or by the equally undesirable system of paying to these wartime professional men a fee or bonus, nominally related to the value of the projects they are designing or executing. It is easy to see, in such a case,

that there may be strong temptation towards inflated estimates in order to bring in higher fees.

Developments of this kind are being carefully observed, and when the new Minister (Sig. Rinaldi) has had time to settle down to his new responsibilities the results will be brought to his notice. He has already been personally advised, on two separate occasions, of their inherent dangers and the disaster into which they may bring the Department of which he is the Head.

In the meantime the Minister promised (letter to the Sub-Commission dated 18th Dec. 1944) that he was fully aware of the "necessity of organizing more technicians", possibly on a temporary or casual basis, with better pay and prospects. He had the matter under discussion with the Minister of Finance.

4. Defendants.

The Sub-Commission is responsible to the C.A. Section of the Allied Commission for seeing that the Minister carries out the various Decrees and Orders promulgated in recent months. The procedure has been speeded up, all officials in Grades 1 to 4 now being due to be completed by the end of December, with an extension of 2 months in special cases. All cases are to be lodged before the "Commissione di Epurazioni" by the end of January, and all decisions are to be announced by the end of April. As at the end of December, referring to Grades 1 to 4 only, out of a total of 41 officials 9 investigations by the Commission had been completed, and 6 of them had been removed from office. The latter had all lodged appeals. (These figures include the case of Sig. Pizzano the Director General, referred to above who, within the last few days, has been reinstated under orders of the A.C.).

All grades included (down to Grade 9), out of a total number of 346 the Minister has made preliminary investigations in 164 cases, and the Commission has dealt with 149 cases.

The latter is being actively pursued in direct contact with the Minister, and with the Secretary to the Italian Epuration Commission. The task is a distasteful and difficult one.

5. Sardinia, Sicily, and Calabria.

Since September Sardinia has had no representative of

4. Defendants.

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All grades included (down to grade 6), out of a total number of 346 the Minister had made preliminary investigations in 164 cases, and the Commission had dealt with 149 cases.

The latter is being actively pursued in direct contact with the Minister, and with the Secretary to the Italian Separation Commission. The task is a painstaking and difficult one.

5. Berlinia, Sicilia, and Calabria.

Since September Sir Italia has had no representative of the Sub-Commission, his duties being covered in those of the "Provveditore di Ieri e Pubblici" at Cagliari. The Regional Commissioner reported at the end of December that that official had come to Rome early in November, and had not returned to his duties in the Island. Both the Commissioner and this Sub-Commission are concerned about the matter and inquiries have been made, since an obligation was placed on the Provveditore to submit regular reports, in the same way that our own officers had done.

286

It was intended to withdraw the one officer remaining in Sicily, located at Palermo, on the 1st January 1943 but for various reasons he is being left there a little longer. The one officer (a civilian) was withdrawn from Calabria on 11st Dec. and his duties merged with those of the senior Civilian official there.

8. Highways, Bridges and Public Works.

(4) Peninsula Iaso Section - Military Highways.

On 17 December a letter was received from Chief Engineer A.F.H.C., requesting the Sub-Commission to assume full responsibility for bridge reconstruction and road maintenance on all P.B.S. (Priority 1) Military Highways as far north as Leghorn. Activity had been in hand for several months on many of the roads by civilian contractors under the direction of the Sub-Commission, but due to inadequacy of plant and transport P.B.S. Engineer Units had been requesting some assistance. Every effort is being made now to relieve P.B.S. to a greater degree by maximum utilization of all contractor's equipment, operation of additional stone quarries, and even the use of animal-drawn transport for materials.

(11) Roads Conference - No. 1 District (Military)

On 14 December 1941 a conference was held at Perugia, called by Chief Engineer, No. 1 District, to discuss all problems relevant to Military Highways. This was attended by Lt. Col. Thompson, Chief of Public Works Division and the Regional Engineers of Lazio-Umbria, Toscana, Emilia and Marche-Abruzzi Regions. Plans for future operation were decided, as follows:-

- (a) Handing over of additional roads to the Sub-Commission for maintenance.
- (b) Maintenance and repair policies: contractors supply of materials and plant.
- (c) Bridge reconstruction policy, properly to utilize all available resources.
- (d) Railway-bridge schemes, and removal schedules.

(111) Inspections.

During the month special inspections were made by representatives of the Headquarters covering the following

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- (a) Handing over of additional roads to the Sub-Commission for maintenance.
- (b) Maintenance and repair policies; contracts; supply of materials and plant.
- (c) Bridge reconstruction policy, properly to utilise all available resources.
- (d) Roadway-drainage systems, and renewal schedules.

(iii) Inspections.

During the month special inspections were made by Engineer Officers of this Headquarters covering the following Routes:

Route	1	Rome to Leghorn
"	2	" " to Florence
"	3	" " to Perugia
"	4	" " to Rieti
"	5	" " to Avellino
"	6	" " to Caserta
"	7	" " to Caserta
"	87	Caserta to Naples
"	7E	Capua to Naples
"	57	Leghorn to Florence

Visits were also made to Regional Engineer's Offices in the Lazio-Umbria, Toscana, and Southern Regions.

(iv) Construction Equipment.

Advice was received from A.E.H.Q. during December that certain items of construction equipment which had been on requisition for many months were scheduled to arrive in January. Even though the items in question represent only a small part of the total requirements (about 4,000 tons) any progress towards ultimate delivery was encouraging. Unfortunately no advice was received about dates of delivery of the transport items, which continue to be a most vital need.

(v) Release of Bailey Bridges.

Very good progress was made during the month in the release of the sectional Bailey-type bridges, by the completion of permanent structures. On Route 6 (Rome to Cassino) permanent masonry or concrete bridges were completed at six of the seven locations where Baileys had been in use, thereby releasing the latter for use in forward areas. Work is well advanced at the seventh site and should be completed by 15 January 1945. In areas northwards from Rome the program is progressing satisfactorily, though winter weather conditions are a retarding factor. No delays have been occasioned by material shortages, due largely to more substantial allocations of cement during the month. Plans are now being made for the reconstruction of 25 bridges in this area, heretofore untouched due to the magnitude of the various tasks. Plans and estimates will be

67 Leghorn to Florence

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(vi) Transport.

No improvement is reported in the bad conditions outlined in last month's description of the transport situation. The relatively few trucks available to contractors have become even less efficient, due to lack of spare parts and tyres. By wide-spread surveys of all available contractors' plant some military products are becoming more adequately equipped, but independent operation can never be attained until trucks are made available for the use of civilian contractors.

(vii) Volume and Value of Public Works.

The following tables have been prepared to show, under three main classifications, the present aggregate volume of Public Works throughout Liberated Italy (excluding the Island of Sardinia):-

Tables on page 7.

Table on page 7.

= 6 =

(cont) X

X PUBLIC WORKS PROJECTS IN PROGRESS X

TYPE	Initiated during 1973	COST (lire)	Completed during 1973	COST (lire)	In progress during 1973
TABLE A Schemes of Military Priority 144,138,020					
Roads	✓ 3	✓ 58,321,000	✓ 56	✓ 313,535,250	175
Bridges	✓ 73	✓ 61,311,350	✓ 81	✓ 66,601,150	200
TOTAL	✓ 109	✓ 123,665,709	✓ 137	✓ 380,136,400	375

210,919,420

TABLE B Schemes other than of Military Priority (and for which approval of AC/SEC was required)					
Roads	✓ 41	✓ 19,522,250	✓ 61	✓ 26,542,557	132
Bridges	✓ 42	✓ 29,105,230	✓ 93	✓ 38,986,525	212
Public buildings, schools, etc.	✓ 36	✓ 11,356,076	✓ 19	✓ 2,791,516	102
Levelling and removal	✓ 17	✓ 36,628,850	✓ 11	✓ 7,141,000	114
Water works, sewers & flood control	✓ 21	14,166,000	✓ 3	✓ 7,375,000	128
Housing	✓ 36	17,705,000	✓ 1	✓ -	13
TOTAL	✓ 233	✓ 132,083,456	✓ 188	✓ 80,158,898	699

TABLE C

Schemes decided upon recently by Italian Agency

Roads	30	28,341,012	✓ 32	✓ 25,997,000	37
Bridges	14	17,517,873	✓ 12	✓ 5,289,500	51
Public buildings, schools, etc.	139	19,002,220	✓ 88	✓ 27,555,732	300
Levelling and removal	76	69,053,275	✓ 36	✓ 19,511,007	170
Water works, sewers & flood control	40	24,243,467	✓ 19	✓ 30,237,185	66
Housing	97	16,848,886	✓ 6	✓ 2,057,813	50
TOTAL	396	235,066,733	✓ 221	✓ 111,748,327	673

284

PUBLIC WORK PROJECTS IN ALGERIA

Cost (lire)	Completed during Month	Cost (lire)	In progress during Month	Cost (lire)
Schemes of Military Priority 144,138,020				
✓ 58,336,397	✓ 36	175	580,815,816	
✓ 6,501,350	✓ 81	286	113,776,968	
✓ 123,855,703	✓ 137	111	1,001,552,811	
210,924,420				
Other Schemes of Military Priority (not for which approval of AG/AD was required)				
✓ 19,922,550	✓ 61	✓ 26,182,657	132	20,124,119
✓ 2,105,280	✓ 25	✓ 38,968,525	212	227,527,021
✓ 11,340,076	19	✓ 2,791,116	102	19,721,301
✓ 31,020,450	111	✓ 7,111,000	112	58,022,237
14,166,000	9	✓ 7,275,000	125	122,621,126
17,705,000	1		13	1,085,000
80,150,488		✓ 80,150,488	699	662,709,137
132,023,456	196			

Schemes financed (and currently) by Italian Agency

283M1.012	✓ 32	✓ 37	57,202,929
17,517,873	✓ 12	✓ 54	17,483,772
149,002,220	✓ 88	✓ 300	370,001,350
69,053,275	✓ 36	✓ 170	166,367,483
24,243,467	✓ 49	✓ 66	65,905,761
14,848,886	✓ 6	✓ 56	154,616,938
235,066,733	223	✓ 673	871,280,812
		✓ 699	662,709,137
		1372	1,533,989,949

(ix) Summary of Work in Hand (Roads & Bridges only)Military

	<u>Number</u>	<u>Cost (Birr.)</u>
Roads	175	550,215,846
Bridges	256	413,736,365
		<u>1,004,252,311</u>

Civil

	<u>Number</u>	<u>Cost (Birr.)</u>
Roads	163	266,367,079
Bridges	266	214,810,793
		<u>481,177,872</u>

The above does not include a large number of small culverts rebuilt under Sub-Commissioner control.

Accomplishment to Date

Roads repaired and under maintenance to date 8300 Km.

Bridges reconstructed to date 736.

7. Road Organization and Policy.

The position as to highways, bridges and public works generally was noted in the preceding paragraph, but mention should be made of an important circular issued by the Chief Engineer N.3 District D.T.S. on 13th Dec. 14 to the six Cds. E.E. responsible for the whole of the Italian front. It is the combat zones, and with the concurrence of the Chief Engineer A.T.H.Q. The circular suspended all previous orders and laid down the principles and responsibilities of the Italian Government.

Number	Cost (Liras)
Roads 163	260,367,078
Bridges 285	274,810,793
	<u>535,177,871</u>

The above does not include a large number of small culverts rebuilt under Sub-Commission control.

Accomplishment to Date

Roads repaired and under reconstruction a total 6500 Km.
Bridges reconstructed to 1 to 736.

7. Road Organization and Policy.

The position as to highways, bridges and public works generally was stated in the preceding paragraph. But mention should be made of an important circular issued by the Chief Engineer No. 3 District S.M.F. on 12th Dec. 44 to the six Cs. B.S. responsible for the whole of the Italian Mainland up to the combat zone, and with the concurrence of the Chief Engineer S.E.H.Q. This circular amended all previous ones and laid down the precise responsibilities of the Allied Commission (operating through this Sub-Commission) in its relationship to the Army Engineering services. It did not deal with the manner in which this Sub-Commission actually operated through the Civilian Civil, but covered such things as:-

- (i) categories of Military Highways
- (ii) priority classifications
- (iii) responsibility for contracts for new work
e.g. on bridges, as opposed to routine road
maintenance contracts.
- (iv) methods of obtaining stores and materials
- (v) plant and mechanical equipment
- (vi) financial accounting
- (vii) snow-clearance operations
- (viii) Civil work administration

The circular included a number of appendices giving a list of highways, a varying range of numbers of miles, that are to be treated as A.B.H.S. or B.H.S. or C.H.S., with other no district priorities. One appendix defined methods of obtaining bitumen for surfacing, another for bridges, transport in certain cases, and the vitally important matter of obtaining explosives for the operation of quarries, (stone-blocks for bridges and culverts; and crushed-stone for road foundations and consolidation). Terms of agreement were laid down for plant and machinery loaned from the armies to the Allied Commission (this Sub-Commission and its firms of contractors), and still other appendices dealt with methods of taking labour reports, charts showing the precise relationship in all areas (Belgium, to the extreme North) between Officers of the Royal Engineers, R.E.S., and our Regional Engineers and Field Engineers (names, location, and telephone numbers).

8. Housing.

(1) Decrees.

A Decree concerning repairs to war-damaged properties, which had been the subject of study and exchange of ideas on the part of the P.W. Ministry and this Sub-Commission was published in the Gazette Officielle N. 93 dated 12 December 1944.

Prior to and since publication the Sub-Commission consulted with and prepared, as advised to the P.W. Ministry, data concerning necessary financial and organizational implementation to operate the Decree, which originally did not contain these provisions.

list of highways, covering many hundreds of miles, were not to be treated as A.R.C. and roads, with others as District priorities. One appendix defined methods of obtaining bitumen for surfacing, cement for bridges, transport in certain cases, and the vitally important matter of obtaining explosives for the operation of quarries, (stone-blocks for bridges and culverts; and crushed-stone for road foundations and consolidation). Terms of agreement were laid down for plant and machinery loaned from the Allies to the Allied Commission (this Sub-Commission and its firms of contractors), and still other appendices dealt with methods of making balance reports, charts showing the precise relationship in all areas (Calabria, to the extreme North) between Officers of the Royal Engineers, P.E.S., and our Regional Engineers and Civil Engineers (names, location, and telephone numbers).

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Press was held in respect to final plans for this implementation, and the new Minister (Sig. Rinaldi) promised to present them in a workable form early in January 1945. Basic points on which arrangements have tentatively been reached include the use of Advisory Committees to be organized in each war-damaged Comune, and the temporary enrolling of Comune local Engineers or Genio Civile personnel, to save time, and to increase the Committees' knowledge of available local resources.

The Decree was endorsed by A.C. and published, applicable to all A.R.C. and Italian Government areas, in the "Gazzetta Ufficiale" No. 102 of 30 December 1944.

(iii) Materials and Transport.

In parallel with work on the Decree, a start was made towards arranging (through other Sub-Commissions) the procurement of, and making available to the Italian Government, construction material and necessary transport for it.

(iii) Field Trips.

Inspection trips covering the Devastated Areas (1944 battle lines) were made and conditions as to refugees persons, building material resources, mines clearance etc. were ascertained, for assimilation into plans for quick application of the new Decree provisions.

(iv) Damage Costs.

Appraisals of statistics received from the Ministry, covering 23 of the 52 so far liberated Provinces, were made and results are being charted as guides to the financial aspects involved.

(v) Summary.

Evidence was clear during the month (Dec.) that the matter of housing is being dealt with diligently and keenly by the Italian Government through the Ministry of Public Works.

9. Electrical Division.(i) Generation

During the month 21,000 KW generating equipment was restored to service in Central Italy, mainly hydro-electric. It should be stated that this is the nominal rating of the plants repaired, and not the true output they may be able to deliver to the system. That output will depend on rain-fall and stream-flow conditions, and will vary from month to month throughout the year.

(ii) Transmission.

In Central Italy 124 km of high-voltage transmission lines were repaired and put back into operation during December, bringing the total of repaired lines up to 2600 Km. In addition approximately an equal number of km. of low-voltage distribution lines have now been repaired. Plans were formulated to establish a high-voltage trunk line from Rome north through

Appraisals of statistics received from the Ministry, covering 28 of the 52 so far liberated provinces, were made and results are being charted as guides to the financial aspects involved.

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(ii) Transmission.

In Central Italy 124 Km of high-voltage transmission lines were repaired and put back into operation during December, bringing the total of repaired lines up to 2000 Km. In addition approximately an equal number of Km. of low-voltage distribution-lines have now been repaired. Plans were formulated to establish a high-voltage trunk line from Rome north through Terni, thence to Florence and eventually to Bologna.

The scheme will include lines which will radiate to the East and West Coasts to provide electric power to Military areas which are now short of energy, as well as for power-interchanges.

In order to accomplish this interchange of power it is essential to arrange for the "frequency" of the supply to be standardized. It has therefore been decided to standardize the Central Italy System at 45 cycles, thus allowing for

interconnections in the 42 cycles area in the north, this being only slightly different. The initial combining of areas will include the Terni area, Rome, and the hydro-plants and lines south and east of Rome.

As rapidly as possible other areas and systems will be connected to the new Central Italy "Grid".

These consolidations will insure better flexibility of power, and better loading of plants and lines.

Such an arrangement insures that a Central Control be established for the purpose of directing the operation of the plants; and the "dispatching" of loads. Numerous conferences have been held with engineers of the Power Companies and of the Italian Government, with the result that the first stage is scheduled to begin on 20 Jan. 45. The Control will be from a selected building in Rome, with special telephonic equipment.

These arrangements are a most important step in the progress of electric power rehabilitation in Central Italy. To meet the endless demands for electric power for military and industrial requirements, and to ensure better continuity of supply and voltage. It is a measure of far-reaching technical importance and one that has not, so far as is known, ever before been attempted in Italy.

(iii) Electrical Reconstruction Committee.

The second meeting of this Committee was held in the Office of the Electrical Division (this Sub-Commission) on 18 Dec. 44, presided over by Maj. Gen. McCACH, Chief Engineer A.P.A.C., with representatives of A.C., 15th Army Group, Military Railways, F.B.S. and No. 1 and No. 3 Military Districts.

The following figures showed the trend of the rehabilitation programme, and were presented by this Sub-Commission:

June 1944.....	50,000 KW plant in operation
Jan. 1945.....	110,000 " "
Mar. 1945.....	170,000 " " estimated in operation
June 1945.....	300,000 " " " "

The Central Italy "Grid" and the establishment of the 45 cycle frequency for Central Italy was discussed and recommended and also other matters, including transport facilities for the power Companies, and repair materials and supplies needed in reconstruction work.

(iv) Power Allocations.

At the monthly meeting of the Electric Power Committee of the Allied Forces Legal Resources (Italian) Board on 18 Dec.

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Jan. 1945.....	" " " " " "
Mar. 1945.....	" " " " " " estimated in year.
June 1945.....	" " " " " " " "

The Central Italy "Grid" and the establishment of the 45 cycle frequency for Central Italy was discussed and recommended and also other matters, including transport facilities for the power companies, and repair materials and supplies needed in reconstruction work.

(iv) Power Allocations.

At the monthly meeting of the Electric Power Committee of the Allied Forces Local Resources (Italian) Board on 18 Dec. 1944 allocations for electric power for occupied Italy were considered and approved, where possible. No additional allocations could be allowed for the Terna and Rome areas for January 1945, since previous allocations had exceeded the available generating capacity. The Committee, on the recommendation of this Sub-Commission, and as representing the views of the Electrical Reconstruction Committee, decided that no new allocations of power could be made until the generating capacity to furnish it becomes definitely available.

(v) Sanctions (Materials)

During December the exact situation improved, and by the end of the month all outstanding demands for the rehabilitation programme had been met. Insulating let-rials, which are still greatly needed, continued to arrive but not in sufficient quantity to satisfy the demand. Transformer parts ordered early in 1944 are arriving at intervals, and these will enable some much-needed transformers to be put back into operation. Steel and ironwork materials are being filled through army sources. The Electrical Division now has a special officer and staff engaged on supplies of materials for the Sub-Commission, and an improvement has taken place in deliveries.

(vi) Transport.

Transport equipment, and especially trucks, still remain a serious obstacle to rehabilitation work, and to the day-to-day operational and maintenance needs of the various companies.

(vii) War Damage to Electric Installations.

Under new armed threats now in force most of the useful work of rehabilitating applications for repairs projects and their financing will be done by the Italian Government, with the Sub-Commission acting in an advisory capacity. The Ministry of Public Works will receive applications direct from the companies for funds to repair damage to generating plants, transmission and distribution lines, and other properties.

After approval by the Ministry the proposals will be considered by the Sub-Commission, to ensure that they accord with policy, established priorities, and above all with essential military needs and the general war effort.

(viii) Remarks.

Mr. Lute was assisted by the Electrical Division of the Ministry of Public Works as liaison representative, and new works in the offices of the Sub-Commission.

He will keep the Ministry informed on all major activities of the Sub-Commission, and as in a meeting to get information required from the Italian Government. This liaison will save time, eliminating many conferences, and will lead eventually to smoother transfer of actual duties and responsibilities.

(ix) Remarks.

A special announcement was made in 31st Dec. to the Federal Public of Rome, as a press "release" (See Public Release of 31st Dec.). There had

Transmit equipment, and especially types, still remain a serious obstacle to rehabilitation work, and to the day-to-day operational and maintenance needs of the various dynamos.

(vii) New Projects in Electrical Installation.

Under new arrangements for the large part of the total work of handling applications for repairs projects and their financing will be done by the Italian Government, with this Sub-Commission acting in an advisory capacity. The Ministry of Public Works will receive applications directly from the companies for funds to repair damage to generating plants, transmitted as distribution lines, and other properties.

After approval by the Ministry the projects will be considered by the Sub-Commission, to ensure that they accord with policy, detailed priorities, and above all with essential military needs in the general war effort.

(viii) Remarks.

DR. ASPI was represented by the Electrical Division of the Ministry of Public Works as liaison representative, and now works in the office of the Sub-Commission.

He will keep the Ministry informed on all major activities of the Sub-Commission, and in a position to get information required from the Italian Government. This liaison will save time, eliminate any confusions, and will lead eventually to a further transference of actual duties and responsibilities.

(ix) Rome City.

A special announcement was made on 31st Dec. to the General Public of Rome, as a Press "release" (See Public Relations Branch N. 172 (R) of 31 Dec. 44). There had been unauthorized and untrue statements in the Italian press, giving the impression that the electrical position of the City might be an early one because much less critical. The Sub-Commission informed the Public, by the P.R.B. "release" mentioned, that of the 1,400,000 KW normally available in Central Italy less than 60,000 KW were available when Rome was liberated last June. The City itself normally required 155,000 KW, of which only 20,000 KW were then available, about 17%.

latter figure had been substantially increased by the end of December to over 30%. Allocation of all available energy is done by the Military authorities in strict priorities, viz.

- (a) Military needs.
- (b) Public Utility Services, or other essential civilian needs.
- (c) Basic industries.
- (d) Civilian (domestic) needs.

Generally, the notification was intended to keep the public properly informed of the position, and to warn them against unduly optimistic expectations.

10. Utility Companies (Rates and Charges)

Applications received from Companies for authority to increase rates are now referred to the Ministry for investigation.

In December the Ministry recommended that 23 Companies be permitted to add temporary surcharges to their basic rates.

This Sub-Commission concurred, following a general check and brief re-examination of the proposals.

The Companies were:-

- 14 Electric
- 5 Water
- 4 Gas

The Companies, the Agn. Fin. Nation Mercis (Water-Works) and the Società Nazionale Isernizi Elettrici protested that the surcharges authorized were insufficient. The protests are being further considered by the Ministry.

Detail work in these cases has now been transferred to the Ministry, with the Sub-Commission notifying in a supervisory capacity in place of the procedure in force from January to September (1944), when the Sub-Commission dealt with the whole matter.

The Ministry is assisted by an Inter-Ministerial Price Committee, set up by Italian Government Decree published in the Gazzetta Ufficiale 5th Dec. 44, No. 20.

A Decree to utilize the authorization of surcharges (on bills to consumers) had been prepared some time ago and our comments had been submitted to the Italian Government in November, but no action has as yet been taken. This matter was called to the attention of the new Minister and the Decree is now being revised. In that Decree the procedure to be followed will be outlined, and responsibility for carrying out

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This Sub-Commission approved, following a careful check and brief re-examination of the proposals.

The Companies were:-

1. Electric
2. Water
3. Gas

Two Companies, the Acqua Pia Antica Marone (Water-Rose) and the Società Unione Sordani elettrica protested that the surcharges authorities were insufficient. The protests are being further considered by the Ministry.

Detail work in these cases has now been transferred to the Ministry, with the Sub-Commission acting only in a supervisory capacity in place of the Commission in force from January to September (1944), when the Sub-Commission dealt with the whole matter.

The Ministry is assisted by an Inter-Ministerial Price Committee, set up by Italian Government Decree published in the Gazzetta Ufficiale 5th Dec. 1940, No. 50.

A Decree to legalize the authorization of surcharges (on bills to consumers) had been prepared some time ago and its contents had been submitted to the Italian Government in November, but no action has as yet been taken. This matter was called to the attention of the new Minister and the Decree is now being revised. In that Decree the procedure to be followed will be outlined, and responsibility for carrying out its provisions defined.

11. Ports (Sunken Ships)

This matter has been referred to in successive monthly reports ever since March 1944. The last reference was in para. 5, page 3, of the Sub-Commission's report for September, the Chief Commissioner having specially addressed the Prime Minister on the matter in that month. Since that time it can only be stated that the matter has "drifted on" with correspondence to and from the Commander-in-Chief Mediterranean, H.Q. Allied Commission, Navy Sub-Commission A.C., and Departments of the Italian Government. The last communication was from the Navy Sub-Commission to the Chief of Staff A.C. on the 28th Dec. 44 recommending, inter alia, that "no further action be taken by the Allied Commission, pending advice from the Commander in Chief, Mediterranean."

This Sub-Commission made surveys of the then position in South Italian ports about nine months ago and it appears, on present evidence, to be unfortunate that so long a time has elapsed without a final and permanent settlement as to the agency that will carry out the actual work of raising the many sunken vessels. Had we been permitted to continue our work many ships could now be in operation.

12. Clearance of Mines.

This matter has frequently been referred to in previous monthly reports, and reference may be made to the October one (para 7 page 2).

Since that date an organization has been established by the Italian Government which promises to go a long way towards solving the dangerous situation that still exists over wide areas. This Sub-Commission and the Ministry of P.W. are particularly interested from the standpoint that neither bridges nor built-up can be rebuilt, roads cannot be repaired, and not even debris clearance carried out in a proper manner so long as this acute mines-menace exists.

There was an informative statement on the position on page 5 of the publication called "Basic News" (United Nations News Service) on 13th Dec. 44, of such interest that it may warrant special perusal. No summary of that article is here necessary, except to say that it is estimated that the retreating Germans left behind them about 3 million mines in those parts of Italy so far liberated. It is hoped that progress from now onwards may be much more rapid, with consequent better reconstructional progress by the Genio Civil their contractors, and labour in their direct employ.

In the next paragraph of this report (Regional Engineers' ...)

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There was an informative statement on the position on page 5 of the publication called "Radio News" (United Nations News Service) on 13th Dec. 44, of such interest that it may warrant special perusal. No summary of that article is here necessary, except to say that it is estimated that the retreating Germans left behind them about 3 million mines in those parts of Italy so far liberated. It is hoped that progress from now onwards may be much more rapid, with consequent better reconstructional progress by the Genio Civil their contractors, and labour in their direct employ.

In the next paragraph of this report (Regional Engineers' Conference), para 13, sub-para (f), it is noted that the Regional Engineer, Uneria Latic, expects 150 men (specially trained civilians with detectors) to begin work in his Region very shortly.

13. Conference (Regional Engineers).

280

This conference was actually held in the first week of January, but as it referred mainly to facts and experiences of December, it is proper to refer briefly to the following matters:-

- (a) A tendency in Sicily, since the powers were given to the Italian Government, to carry out works of secondary importance (see also para. 2 above).

Naval Authorities are calling on the Regional Engineer to carry out certain urgent projects. Agreed that these should be dealt with on the same lines as those formerly required by No. 1 District (Military) before it left the Island i.e. of a high priority.

(b) In Southern Region a disinclination on the part of the Genio Civile to accept responsibilities, until recently carried by Public Works officers of A.C. There is need for Press publicity notifying the widely extended powers recently given to the Italian Ministry, since responsibility for certain delays is now being incorrectly put on the Allied Commission (see also para. 2 above).

(c) Concerning transport, tyres and tubes are finding their way into the "black market", since they are now being distributed through Italian Agencies. At least a proportion should be handled solely by Allied Authorities, so that Public Works contractors employed by this Sub-Commission may not have to pay many times the proper price for them and, what is most important, get these supplies when they need them to carry out our Military responsibilities.

(d) The Regional Engineer Lazio-Maria said that since last October the Minister of P.W., or Genio Civile, have approved projects, under their own powers, to the value of 66 million lire. As at the end of December not a single Lira had been made available "in the Bank". Hence, those projects that have been started are going extremely slowly, contractors knowing that payments may be long deferred. In the meantime, on 16th Dec. the Finance Sub-Commission had brought the matter directly to the Minister's attention in the form of a special communication, following representations from this Sub-Commission, and an admission by the Director General (Sig. Tizzano) that the Administrative side of his Ministry was not functioning. This bears out, fully, certain views expressed in the Sub-Commission's report for September last (para. 2, page 2), which pointed out weaknesses in the Administrative Branch of the Public Works Ministry, and stated that on 20th Sept. a letter had been sent to the Minister analysing the position, and asking suggestions for improvement. Judging by results, of which this failure to provide funds is but one example, little or nothing has been done.

(e) In the same Region there is as yet no organisation for the release of critical structural materials, the control of which was transferred to the Italian Government some time ago.

(c) Concerning transportation, since they are now being distributed way into the "black market", since they are now being distributed through Italian Agencies. At least a proportion should be handled solely by Allied Authorities, so that Public Works contractors employed by this Sub-Commission may not have to pay many times the proper price for them and, what is most important, get these supplies when they need them to carry out our Military responsibilities.

(d) The Regional Engineer Emilio-Maria said that since last October the Minister of P.W., or Genio Civile, have approved projects, under their own powers, to the value of 66 million lire. As at the end of December not a single firm had been made available "in the bank". Hence, those projects that have been started are going extremely slowly, contractors knowing that payments may be long deferred. In the meantime, on 16th Dec. the Finance Sub-Commission had brought the matter directly to the Minister's attention in the form of a special communication, following representations from this Sub-Commission, and an admission by the Director General (Sig. Tiziano) that the Administrative side of his Ministry was not functioning. This bears out, fully, certain views expressed in the Sub-Commission's report for September last (para. 2, page 2), which pointed out weaknesses in the Administrative Branch of the Public Works Ministry, and stated that on 20th Sept. a letter had been sent to the Minister analysing the position, and making suggestions for improvement. Judging by results, of which this failure to provide funds is but one example, little or nothing has been done.

(e) In the same Region there is as yet no organisation for the release of critical structural materials, the control of which was transferred to the Italian Government some time ago (refer to para. 3 page 2 this Commission's November report).

(f) As to mines clearance, three squads of 50 men each (civilians specially trained), with detector instruments are starting work very shortly in the Region (Umbria-Lazio). (Refer also to para. 12 of this report, on the same subject).

(g) It is the responsibility of the Regional Commissioner to provide vehicles required by Regional Engineers serving on their staffs (vide Buchanin Section's letter No. 5.05/E/S of 22 Dec. 44).

(h) Almuzal-Baraka reported that the Arab Civilian Operations there are unorganized and seriously lacking in initiative; in part due to "utterly inadequate remuneration".

(i) Difficulties in obtaining structural materials in Tescasa are, the Regional Engineer reported, due to several Allied Acheson "blocking" them. He is beginning bridge reconstruction in the City of Plorence, and has been asked by 5th Army to take over numerous other bridge schemes and considerable additional lengths of highways. Stone-crushers and other quarry machinery present an even greater problem than that of supplies of bitumen.

(j) In the same region (Tescasa) the Arab Civilian Organization is good, but more senior engineers are urgently wanted.

(k) The Regional Engineer, Ellis reported that A.M.O. etc. Army and promised to change both his designation, duties, and status. (This matter is being taken up at once).

(l) Bailey-bridges in the same region are required in great numbers in operational areas. Where possible such bridges are being replaced either by temporary wooden bridges on highways leading up to the front, or in some instances by permanent structures.

(m) In the same region "Berthold" (anti-aircraft pumping) propelled well in December. Two out of five large pumping stations in the Ravenna area had been found undamaged by the enemy and the other three are under repair.

(n) There are water-supply problems affecting the civil population, principally at Rimini.

(o) The manufacture of light pre-fabricated steel girders in large numbers was considered. To build up stocks to replace the many Bailey bridges that will be dismantled and taken northwards, if and when the enemy withdraws.

and other queries concerning the situation.

- (1) In the area around (Pisano) the basic Civils organization is good, but more senior engineers are urgently wanted.
- (2) The Regional Engineer, Lillo reported that A.M.B. 8th Army had promised to change both his designation, duties, and status. (This matter is being taken up at once).
- (3) Bailey-bridges in the area are required in great numbers in operational areas. Where possible such bridges are being replaced either by temporary wooden bridges on highways leading up to the front, or in some instances by permanent structures.
- (4) In the area around "Munifida" (land drainage and pumping) proceeded well in December. Two out of five large pumping stations in the Revenue area had been found undamaged by the enemy and the other three are under repair.
- (5) There are water-supply problems affecting the civil population, principally at Rimini.
- (6) The manufacture of light pre-fabricated steel girders in large numbers was considered, to build up stocks to replace the many Bailey bridges that will be dismantled and taken northwards, if and when the enemy withdraws.

14. Miscellaneous.

- (i) Lt. Col. G.B. Rhodes M.C. returned to duty on 13th Dec. following 16 days temporary duty at the War Office, London.
- (ii) Regarding structural materials supply for the works requirements, the Commerce Officer of Piemonte Region addressed to the Commerce Sub-Commissioners M.C. a special communication on 16th Dec. pointing out the probable exceptional conditions that may be found to exist both in Piemonte and Liguria, and outlining a special and simplified procedure by which materials may be made available to this Sub-Commission and its Regional Engineer staffs, when the time arrives.

279

(iii) An effort was made, following discussions with representatives of the Ministry of P.W. and Lending Contractors, to establish uniform prices for the hire of heavy plant and equipment such as rollers, concrete mixers, cranes, excavating plant etc.

(iv) A number of instances having occurred in which exaggerated and very misleading information had been given to the Sub-Commission by Italian Authorities, and indeed by the Ministry itself, copies of our own reports were sent to the Ministry on 19th Dec. These were the result of special inspection tours undertaken by Engineer Officers from this H.Q., giving first-hand and up-to-date information, and proving conclusively some of the inaccuracies and exaggerations mentioned.

A particular case related to condition at Pescara, regarding which client reports had been received a short time previously. The Sub-Commission's own investigations gave a surprisingly different and better picture.

This, and other similar examples, emphasise the importance of frequent tours of inspection by the Sub-Commission's own officers, and indeed their indispensability.

15. Personnel.

The following transfers have been effected:-

NAME OF OFFICER	FROM	TO
Maj. A.E. Prady	(B) H.Q.	1st Br Gen.Hsqy. (2100.)
Maj. Edwin. A. Sholl	(A)	ASSIGNED Abruzzi-Marche
Maj. C.P.B. Collespa	(B)	ASSIGNED H.Q. for re-assignment
Maj. Robert A. Bell	(C) H.Q.	(Transfers to be attached) Lazio-Umbria
Capt. W.E. Trommershausen	(A) H.Q.	(Transfers to be attached) Lazio-Umbria
Capt. J.S.C. Williams Hawthorne	(B) Venturia	Attached A.M.O. 8th Army
Lieut. P.A. Strollie	(A) Southern	ASSIGNED H.Q. for re-assignments

regarding which analyst reports had been received. These reports were previously. The Sub-Commission's own investigations have a surprisingly different and better picture.

This, and other similar examples, emphasize the importance of frequent tours of inspection by the Sub-Commission's own officers, and indeed their indispensability.

15. Personnel.

The following transfers have been effected:-

NAME OF OFFICER	FROM	TO
Maj. A.E. Treacy	(E) H.Q.	104 Br Gen. Hosp. (Diel)
Maj. Edwin. L. Shull	(A)	ASSIGNED Abruzzi-Marche
Maj. C.P.E. Helicon	(E)	ASSIGNED H.Q. for re-assignment
Maj. Robert A. Poil	(A) H.Q.	(Changes to be attached) Lazio-Umbria
Capt. W.E. Trommerhausen	(A) H.Q.	(Changes to be attached) Lazio-Umbria
Capt. J.S.C. Wilson- Hueston	(B) Venetia	Attached A.M.G. 8th Army
Lieut. P.A. Strollin	(A) Southern	ASSIGNED H.Q. for re-assignment
Capt. W.N.J. Hubbard	(B) Southern	ASSIGNED H.Q. for re-assignment
Mr. Conrad Rapp	(A) Southern	ASSIGNED Lazio-Umbria

The following Officers of the Sub-Commission received promotion :-

Lt.Col. Bolick	(A)	to	Col. (early in Jan. 45)
Captain A.E. Preddy R.A.	(B)	to	Major
Captain Woobor	(A)	to	Major
Captain Donald R. Gaither	(A)	to	Major
Lieut. Butcher	(E)	to	Captain
Lieut. Wade-Brown	(E)	to	Captain
Lieut. Stephens	(E)	to	Captain
Sub. A.K. King	(E)	to	J/Comm.

The next paragraph outlines a list of Officers and Allied civilian technicians of this Sub-Commission employed both at Headquarters and in the Region. At Headquarters there are 19, and also 3 awaiting re-assignment; in the Region there are 51, making a total of 73; two Officers, (1 British and 1 American) joined the Sub-Commission during the month. As stated in paragraph 22 of the October report, six British Officers were nominated for service in another Theatre of Operations and it is therefore to be expected that in due course their services will be lost to the Sub-Commission making its duties more onerous for the remainder.

The following list includes two Colonels and seven Lieutenant-Colonels, five of whom are American and four British. Opportunity is taken to note, again, the long-standing anomaly (see paragraph 18 of September report and paragraph 23 of October report, also paragraph 13 November Report) that the Director (Am.) and the Deputy-Director (Br.) continue to hold the rank of Lieut-Colonel, although two full Colonels and five Lieut-Colonels are under their direction. (One Lt.Col. (Am.) was promoted early in January. This was the second such promotion within 3 months, both having been made without the Director or Deputy-Director knowing anything about them. This is a serious matter, is subversive of all good organization and, indeed, else of discipline.

Nominal Roll of Officers.

AT HEADQUARTERS:-

Lt.Col. Louis A. Jenny	0249627	C.E.	(A) Director Sub-Commission
Lt.Col. George E. Rhodes	46571	R.E.	(B) Deputy-Director

The next paragraph contains a list of Officers and Allied civilian technicians of this Sub-Commission employed both at Headquarters and in the Region. At Headquarters there are 19, and also 3 awaiting re-assignment; in the Region there are 51, making a total of 73; two Officers, (1 British and 1 American) joined the Sub-Commission during the month. As stated in paragraph 22 of the October report, six British Officers were nominated for service in another Theatre of Operations and it is therefore to be expected that in due course their services will be lost to the Sub-Commission making its duties more onerous for the remainder.

The following list includes two Colonels and seven Lieutenant-Colonels, five of whom are American and four British. Opportunity is taken to note, again, the long-standing vacancy (see paragraph 18 of September report and paragraph 22 of October report, also paragraph 19 November Report) that the Director (A.A.) and the Deputy-Director (Br.) continue to hold the rank of Lieut-Colonel, although two full Colonels and five Lieut-Colonels are under their direction. (One Lt.Col. (Am.) was promoted early in January. This was the second such promotion within 3 months, both having been made without the Director or Deputy-Director knowing anything about them. This is a serious matter, is subversive of all sub-organization and, indeed, also of discipline.

Nominal Roll of Officers.

AT HEADQUARTERS:-

Lt.Col. Louis A. Janny	0245627	C.E.	(A) Director Sub-Commission
Lt.Col. George E. Rhodes	46874	R.E.	(B) Deputy-Director
Major A.E. Pready	161074	R.A.	(B) Admin. Officer (in Hosp.)
J/Gold. A.K. King	287035	A.E.S.	(B) Asst. Admin. Officer

Public Works Division.

Lt.Col. V.S. Thomson		R.O.E.	(B) Chief, Pub. Wks. Div. 278
Capt. Rufus W. Shophard	0269899	S.R.	(A) Asst. to Chief P.W.D.
Major Herbert W. Hyland	05225677	S.R.	(A) P.W.D. South
Major C.P.B. Selison	101395	R.A.	(B) P.W.D.
Capt. R.N.J. Hibbert	236657	R.E.	(B) Public Works Officer
Mr. D. Selman	Civilian		(A) Housing

= 18 =

Electrical Division.

Lt. Col. W.M. Lapper	294812	G.L.	(B)	Chief, Elect. Div.
Capt. Louis W. Laughlin	0521392	S.R.	(A)	Asst. to Chief El. Div.
Major Edmund J. Barry	0225044	C.E.	(A)	Elect. Generation Dept.
Major Vinel S. Ronton	0299696	Inf.	(A)	Operations & Trans. Dept.
Major Robert A. Pelf	0328685	Sig. C.	(A)	Elect. Util. Officer.
Major H.W. Westwood	139095	R.E.	(B)	Water, Gas, Drainage
Major L.G. Price	142572	R.E.	(B)	Supply Officer (Atchd)
Capt. William E. Trommershausen	0342407	F.A.	(A)	Elect. Util. Officer
Capt. Paul K. Vannoy	0280920	C.E.	(A)	Elect. Util. Officer
Capt. Harry G. Best	86872	R.A.	(B)	Elect. Util. Officer
				(Atchd. Abruzzi-Marche Region)
1st Lt. P.A. Shorelie	01551106	Orl.	(A)	Elect. Util. Officer

IN REGIONS :-Sicilia Region

Major D.A. Boyd

163511 R.E. (B) Regional Engineer

Southern Region.

Col. Lester J. Hensley 0174226, 2675 Ret. (A) Reg. Engr. Officer
 Major William P. Chamberlain 03073332 F.A. (A) P.W.O. Liaison Off. N.2 District

Capt. D.K. Brown 0382133 C.A.C. (A) Highways
 Capt. Ralph A. Ryan 0520279 S.R. (A) Elect. Util. Officer
 Capt. F.M.H. Stephens 183578 R.E. (B) Highways
 Mr. H.H. Townsend Civilian (A) Reg. Engr. Staff.

Lazio-Umbria Region

Lt. Col. G. de C.L. 12396 R.E. (B) Regional Engr. Officer
 Tinsley V.C. 181780 R.E. (B) Public Works Officer
 Major A.G. Evans 0519279 S.R. (A) Public Works Officer
 Major A.E. Michel 0302802 F.A. (A) Public Works Officer
 Capt. Warren P. Leu 0383013 Inf. (A) Public Works Officer
 Capt. Nathaniel M. Whitten 0376781 C.A.C. (A) Public Works Officer
 Capt. William R. Gentry 0824642 C.A.P. (A) Highways
 Capt. T.P. Spriggs 0302802 F.A. (A) Highways
 Capt. A.J. Green NONE L.D.S. (B) Highways
 Capt. E.P. Wall-Brown 212800 R.A. (B) Elect. Util. Officer
 Capt. E.P. Wall-Brown 2658408 S-lance. (B) Elect. Util. Officer

IN REGIONS :-Alitalia Region

Major D.A. Boyd

163541 R.E. (M) Regional Engineer

Southern Region

Col. Lester J. Hensley

0174226.2675 Ret. (A) Reg. Engr. Officer

Major William F.

03073335 F.A. (A) P.W.O. Liaison Off. N.C. District

Chamberlain

Capt. D.K. Brown

0382733 O.A.C. (A) Hi Highways

Capt. Ralph A. Ryan

0520275 S.R. (A) Elect. Util. Officer

Capt. F.M.H. Stephens

163578 R.E. (B) Hi Highways

Mr. H.H. Tommasetti

Civilian (A) Reg. Engr. Staff.

Lazio-Umbria Region

Lt. Col. G. de C.E.

12396 R.E. (B) Regional Engr. Officer

Pindley V.O.

Major A.G. Evans

181780 R.E. (B) Public Works Officer

Major A.E. Michel

0519275 S.R. (A) Public Works Officer

Capt. Warren P. Lawson

0383013 Inf. (A) Public Works Officer

Capt. Nathaniel M.

0376781 C.A.C. (A) Public Works Officer

Whitten

Capt. William R. Gentry

0224644 C.A.C. (A) Hi Highways

Capt. E.P. Springs

0302832 F.A. (A) Hi Highways

Capt. A.J. Green

NONE F.L.D.C. (B) Hi Highways

Capt. E.P. Webb-Brown

212800 R.A. (B) Elect. Util. Officer

Capt. J.W.L. Butcher

265803-Lands. (B) Elect. Util. Officer

2nd Lieut. Peter F. Natale

01691827 C.E. (A) Public Works Officer

Mr. Conrad H. Reiff

Civilian (A) Reg. Engr. Staff.

Abruzzi-Marche Region

Lt. Col. Latimer

0211431 C.E. (A) Reg. Engr. Officer

Capt. J.H. Walsh

052436 S.R. (A) Hi Highways

Major J.E. Podes

291969 S.L. (B) Elect. Util. Officer

Major Edwin L. Shull

0335061 Inf. (A) Public Works Officer

Mr. P.O. Griffith

Civilian (A) Reg. Engr. Staff.

= 10 =

Sardinian Region.

Now under Italian Control.

Toscana Region.

Major F. S. L. Lee	181419	S. L.	(A) Regional Eng. Officer
Major L. J. Lee	117600	S. L.	(B) Public Works Officer
Capt. T. R. Brownlee	0152813	S. L. E.	(C) Hi Ways
Capt. E. R. C. Stephens	163578	S. L. R.	(D) Elect. Util. Officer
Capt. J. W. Parkins	178091	S. L. E.	(E) Public Works Officer
Capt. Martwell J. Woodson	151675	S. L. R.	(F) Elect. Util. Officer
			(G) (Atchd. H. Q. J)
Major G. Tucher	71496	S. L.	(H) Liaison Officer (V)
			District
Capt. A. G. A. Saul	101724	S. L.	(I) Hi Ways
Major E. R. Richardson	286535	S. L. A.	(J) Public Works Officer

Latina Region

Major W. H. Spata	016070	S. L. R.	(A) Regional Eng. Officer
Major Wilfrid H. Wallis	263335	S. L. E.	(B) Public Works Officer
Major Richard F. Webster	0152955	S. L. E.	(C) Atchd. A. M. O. 5th Army
Capt. E. H. Rogers	041328	S. L. E.	(D) Elect. Util. Officer

Piemonte Region.

St. Col. G. R. Birckett	0962256	S. L. E.	(A) Regional Eng. Officer
Major G. F. Buckley	166173	S. L. E.	(B) Public Works Officer
			(Atchd. Lazio-Umbria Region)
Capt. J. A. Root Jr.	090613	S. L. E.	(C) Public Works Officer
Capt. F. E. Smith	0520118	S. L. E.	(D) P. W. O. Atchd. Toscana Region)
Major G. C. Dario	031967	S. L. E.	(E) Hi Ways Officer
Major J. S. Bennett		S. L. E.	(Atchd. Toscana Region)
			(Elect. Util. Officer)

Umbria Region

Col. Clarence E. Pollock	070417	S. L. E.	(A) Regional Eng. Officer
			(Atchd. - Jan. 1945)
Major A. Crowther	151258	S. L. E.	(B) Atchd. Lazio-Umbria Region)
Major Harry Lanson	0166564	S. L. E.	(C) Atchd. Toscana Region)
			(Atchd. Lazio-Umbria Region)

Venezia Region

Major W. Wright M. A.	111159	S. L. E.	(A) Regional Eng. Officer
			(Atchd. Toscana Region)

Public Works Region

Major W.M. Quinn 0250170 S.E. (A) Regional Engr. Officer
 Major Wilfred H. Gault 261225 G.L. (B) Public Works Officer
 Major Richard I. Medler 0338955 C.E. (A) Atch. 44th Div. 5th Army
 Capt. E.H. Adams 0413238 C.E. (A) Elect. Util. Officer

Piedmont Region

Lt. Col. O.E. Harbrett 0902156 S.E. (A) Regional Engr. Officer
 Major R.E. Hickley 06470 E.E. (B) Public Works Officer
 (Atch. 1st Div. 1st Army)
 Capt. J.L. Ruhl Jr. 0901513 S.E. (A) Public Works Officer
 Capt. E.E. Smith 0520148 S.E. (A) E.C.O. Atch. 1st Div. 1st Army
 Major C.G. Elorbe 0432844 S.E. (B) Highway Officer
 (Atch. 1st Div. 1st Army)
 Major J.B. Bennett 0411111 E.E. (B) Elect. Util. Officer

Leaherdia Region

Col. Clarence T. Hollick 0170447 E.E. (A) Regional Engr. Officer
 (Atch. 1st Div. 1st Army)
 Major J. Overton 051969 R.E. (B) Attached 1st Div. 1st Army
 Major Henry Larson 0198344 C.E. (A) Atch. 1st Div. 1st Army

Venezia Region

Major W. Knut H.C. 141150 E.E. (A) Regional Engr. Officer
 (Atch. 1st Div. 1st Army)
 Capt. Edmund S. Wellman 0251778 S.E. (A) Public Works Officer
 (Atch. 1st Div. 1st Army)
 Major A.D. Farley 0402222 E.C.O. (B) Highway
 Capt. J.S.C. Wilson 0416361 E.E. (B) Highway
 (Atch. 1st Div. 1st Army)
 Major Mallory O. Horster 0215111 S.E. (A) Elect. Util. Officer
 (Atch. 1st Div. 1st Army)

44th Army

Major Donald P. Switzer 0506034 C.E. (A) Engineer Officer
 (Atch. 1st Div. 1st Army)

REGIONAL REPORTS.

16. SICILIA REGION - (Regional Engineer: Major D.L. BIRD, R.2.)

(a) Staff and Personnel.

The Regional Engineer is the only Public Works Officer, A.C., left in the Island. 330

(b) Highways and Bridges.

So-called Military Highways are now carrying little military traffic.

Road expeditions both military and non-military - companies to Antipatero, principally due to lack of coal and petrol. A vast program of works would now be necessary to restore all the roads of Sicily to a reasonably good state of repair.

Action has been taken to obtain special issues of petrol (military highways only).

In regard to bridge reconstruction, the following extract from A.T.H.2. P.11. Report No.43, dated 23 Nov.41, is of interest:

"On the North shore of the Island there are still a few detestable chord bridges very blown last year by the retreating Germans, but all are in the process of being repaired. One of the Group who made the same trip in the summer stated that conditions were much better now, and that a considerable number of the bridges had been finished since that time. This is a definite fact considering the primitive methods used by the local persons doing most of the work. Stone is crushed by hand, and at the bridge ends were carrying baskets of crushed rock on their heads down to the workers in the structure. The Germans did a thorough job of demolition along this coast, so that there has been much work to do."

(c) Other Public Works.

The Regional Engineer has proposed a more expeditious procedure for putting in hard works required by Allied Naval Authorities in Sicilian ports. Such works are usually urgent and provision should, therefore, be made for commencing them with the minimum of delay.

Severe gales at Catania have caused some damage in the port area. The Genio Civile is carrying out first-aid repairs.

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The Regional Engineer has proposed a more expeditious procedure for putting in head works required by Allied Naval Authorities in Sicilian ports. Such works are usually urgent and provision should, therefore, be made for commencing them with the minimum of delay.

Severe gales at Catania have caused some damage in the port area. The Genio Civile is carrying out first-aid repairs.

(d) Electricity.

Up to the middle of December there had been hardly any rain in Sicily. As allocation of coal for thermal power stations had also been reduced there was, in consequence, a shortage of energy. Since the commencement of the rains later in the month, the situation has somewhat improved, but it is necessary to ration the available power more severely than before. The present strict rationing will probably continue throughout January and February.

(e) Material.

As the basis of the report on the subject, the material is presented in the form of a summary of the material and the results of the investigation.

(f) Present.

The Report on the subject, which was received from the author, is presented in the form of a summary of the material and the results of the investigation.

(g) Summary of Project.

The following table shows, under the heading "Summary of Project," the present volume and value of the project in the project area.

Table on page 23 and 24.

Table on pages 23 and 24.

276

- 23 -

12141

Public Works Projects in Sicilian Region.

Type	Initiated During Month	Cost (lire)	Completion During Month	Cost (lire)
Schemes of Military Priority				
Roads	-	-	2	3,119,800
Bridges	-	-	-	-
Miscellaneous	-	-	-	-
TOTAL	-	-	2	3,119,800
Schemes other than of Military Priority, but for which the Approval of AG/AG was				
Roads	8	7,200,000	1	600,000
Bridges	-	-	3	5,728,000
Public Buildings	1	8,650,000	-	-
Electricity, Water Supply & Utilities	2	1,500,000	-	-
Miscellaneous	1	3,000,000	-	-
TOTAL	12	14,350,000	4	6,328,000

275

Public Works Projects in Sicilia Region.

Initiated during month	C o n t (line)	Completed during month	C o n t (line)	In Progress during month	C o n t (line)
Approved of Military Priority					
-	-	2	3,429,800	0	35,106,147
-	-	-	-	6	6,817,000
-	-	-	-	3	2,150,000
-	-	2	3,429,000	17	17,403,000

Not approved of Military Priority, but for which the Approval of AG/AGI was required.

11	1,220,000	1	505,000	1	55,056,217
-	-	3	5,718,000	1	70,518,111
1	2,600,000	-	-	1	7,809,000
2	1,500,000	-	-	1	1,300,000
1	1,000,000	-	-	1	2,000,000
12	11,390,000	1	6,318,000	79	177,674,000

Sources handled independently by Italian authorities

Type	Initiated during November	Cost (Lira)	Completed during November	Cost (Lira)
Books	11	3,234,416	8	11,197,000
Articles	4	-	3	808,500
Public Meetings	15	13,432,320	22	5,446,720
Speeches, radio talks & Exhibits	2	2,300,000	-	-
TOTAL	32	15,166,736	33	17,151,720

Schemes handled independently by Italian Authorities

Initiated during November	Cost (Lire)	Completed during November	Cost (Lire)	In progress during November	Cost (Lire)
11	5,234,412	8	11,197,000	13	4,638,761
-	-	3	608,500	5	2,816,000
15	15,432,320	22	5,148,720	15	2,507,200
2	2,120,000	-	-	3	6,746,000
76	19,126,732	33	17,154,220	36	16,788,561

17. SOUTHERN REGION - (Regional Engineer: Col. L. A. HENRIKSEN, S.C.E.)(a) Staff and Personnel.

No change in personnel since last month.

(b) The Regional Commissioner and Regional Engineer have jointly made a series of special inspection tours in Naples City and Province, principally in order to acquaint the former with the present state of public works and utilities operations. Similar joint inspection tours are planned for other provinces.

(c) Highways and Bridges.

Routes 107 and 108, the Provincial road (along the south shore of Lake Ampollina) between Routes 103 and 109, the provincial road (along the left bank of the River Neto) between Routes 105 and 107, and the portion of Route 106 that lies between GOR. 270 and CROTONE have been classified as Military Highways by No. 3 District. Plans have been made for keeping these roads free from obstruction by snow.

In the NAPLES, SERRAVALLO and CERVINIA areas, approximately 15 more miles of Military Highways have been included in the maintenance program. In these areas, about 240 miles of military highways received maintenance during the month, and in the SERRAVALLO area, about 112 miles.

In the RARI zone, airfield roads and some Commercial roads of military importance are reported to be in bad condition. It is understood that the Civil Authorities cannot cope with the work that has been handed over to them for maintenance of these smaller roads.

Severe storms in NAPLES and POTENZA Provinces caused much damage to highways, destroying 17 bridges and causing about "wash-outs" on four roads. Estimated costs of the damage are 16 million lire on State Highways, 20 million lire on Provincial roads, and 4 million lire on Commercial roads. Urgent temporary repairs are in hand. Also in the CERVINIA zone, six bridges were destroyed and six landslides occurred. The resulting interruptions have been overcome, except for two minor obstructions on non-military roads.

Maintenance work on non-military roads has been initiated over a further 40 miles, and was completed along 117 miles; other maintenance in hand on 123 miles.

Six bridges on Military Highways were completed during the month. On other roads, three bridge reconstructions were completed, five were initiated and two were in hand.

(d) Other Public Works.

and repairs to hospitals and to Public and Municipal

The Provincial road (along the left bank of the River Neta) between Routes 106 and 107, and the portion of Route 106 that lies between DOR, 340 and CHOMONT have been classified as Military Highways by No. 3 District. Plans have been made for keeping these roads free from obstruction by snow.

In the MATIS, BENTLEY, and IVILLINO areas, approximately 15 more miles of Military Highways have been included in the maintenance program. In these areas, about 240 miles of military highway received maintenance during the month, and in the MATIS area, 112 miles.

In the MATIS zone, the MATIS road and some Commercial roads of military importance are reported to be in bad condition. It is understood that the Civil Authorities cannot cope with the work that has been handed over to them for maintenance of these smaller roads.

Severe storms in MATIS and PORTAL Provinces caused much damage to highways, destroying 17 bridges and causing severe "wash-outs" on four roads. Estimated costs of the damage are 16 million Lire on State Highways, 20 million Lire on Provincial roads, and 4 million Lire on Commercial roads. Urgent temporary repairs are in hand. Also in the MATIS zone, six bridges were destroyed and six landslides occurred. The resulting interruptions have been overcome, except for two minor obstructions on non-military roads.

Maintenance work on non-military roads has been initiated over a further 100 miles, and the completed road has been initiated over 100 miles. The MATIS road is 100 miles long.

Six bridges on military highways were completed during the month. On other roads, three bridge reconstructions were completed. Six were initiated and two were in hand.

(d) Other Public Works.

General repairs to hospitals and to Public and Municipal buildings have continued throughout the month; as also has debris-clearance. No item worth particular mention.

A housing lay-out for REGGIO (Calabria), which will provide shelter for 25,000 persons, has been submitted for approval.

(a) Electricity.

The peak-load situation in the MATRIS area during the month necessitated prompt action. It exceeded the allocated values and, in an effort to reduce them, the following action was taken:-

- (i) Electric services for heating and hot operation of passenger elevators was discontinued.
- (ii) Shops, business offices, and schools were closed at an earlier hour in the afternoon.
- (iii) Power factories were placed on "off-peak" operation.

Due to a break in the 150 KV transmission line serving the ARULLI area it was necessary to curtail the supply to the RARI and PORHIA zones for a period of 10 days. The only power available for these areas during that period was supplied over the BELVINTO-POHRI 60 KV transmission line of the State Railways, and the power-supply was only 30% of normal. Damage to the trash racks on the intake of the TYPHURUNY penstocks caused the entire plant there to be out of operation from 6 to 18 December. During the period of repairs at this plant it was necessary to reduce the power-load throughout Southern Region to 75% of normal.

Reconstruction of the MATRIS plant has been completed and the unit is now being tested. It is estimated that this plant will be in operation by 15 January. The movement of 8,12,000 KV. transformer from RARI to TYPHURUNY has started. It is estimated that this transformer will be ready for operation at TYPHURUNY by 1 February. It will provide 2,000 KV. of additional capacity on the 150 KV system.

Flood damage interrupted the 150 KV power line feeding TYPHURUNY. The service was restored after ten days. Floods also destroyed the small hydro-electric station at VISIMNI. Electric supply used for heating and cooking purposes by both military and civilian consumers is being cut off.

Authority for this is contained respectively in L.7.H.Q. circular AG-675/771 595-0 of 11 Oct 44 and in the King's Decree No. 95 of 5 Apr 44. This action is taken in order to keep within the electricity allocation.

There have been numerous written complaints from military service, expressing protest and requesting special consideration.

(f) Other Public Utilities.

(1) Water.

the IPULIA area it was necessary to curtail the supply to the BARI and POCILIA zones for a period of 10 days. The only power available for these areas during that period was supplied over the BENEVENTO-200KV line. 60 KV transmission line of the State Heilwege, and the power-supply was only 30% of normal. Damage to the trash racks on the intake of the BENEVENTO-200KV line caused the entire plant there to be out of operation from 6 to 18 December. During the period of repairs at this plant it was necessary to reduce the power-load throughout Southern Region to 75% of normal.

Reconstruction of the CILONE plant has been completed and the unit is now being tested. It is estimated that this plant will be in operation by 15 January. The movement of a 12,000 KV transformer from BARI to BENEVENTO has started. It is estimated that this transformer will be ready for operation at Benevento by 1 February. It will provide 2,000 KV of additional capacity on the 150 KV system.

Flood damage interrupted the 150 KV power line feeding CUDILL. The service was restored after ten days. Floods also destroyed the small hydro-electric station at VISINCHI. Electric energy used for heating and cooking purposes by both military and civilian consumers is being cut off.

Authority for this is contained respectively in A.D.H.Q. circular 16-675/171 3BS-0 of 31 Oct 44 and in the King's Decree No.95 of 5 Apr 44. This action is taken in order to keep within the electric supply call.

There have been numerous written complaints from military so far, expressing protest and requesting special consideration.

(f) Other Public Utilities.

(i) Water.

Small aqueducts located in PIANO and MONTEDONATE, which will interrupt the supply of water, are under repair. Repairs in various parts of the City's water distribution system are also in hand.

Flood-damage interrupted the service to 28 towns on the public supply system. Supply has been restored to two of those towns, and temporary repairs are being carried out urgently to overcome the other interruptions.

A survey has been made of oiling requirements for the sterilization of water supplies throughout the Region, and a consolidated requisition has been submitted through proper channels.

(4) Gas.

The average daily gas production in TAPES during December was 67,000 cu.m. This represents a reduction of 17,000 cu.m. per day in comparison with the production in November, and is attributable to the unsatisfactory quality of the coal supplied to the Company.

The 60,000 cu.m. gas holder has now been completely repaired and is expected to be in use early in January.

Repairs both to the gas works and distribution system continued during the month.

(g) Industries and Factories.

The Regional Engineer is aiding the rehabilitation of cement works at VHO VILVILL. This is of major great importance, since the product is badly needed.

(h) Materials.

All requests for material are now being referred to the "Comera di Comares".

137 tons of 1418 Nitron have been released for the manufacture of aluminium-sulphate (road-surfacing).

(i) Transport.

Trucks and tyres are badly needed. Road transportation facilities available are quite inadequate for the work in hand. Rail transportation is also difficult.

(j) Summary of Projects.

The following table shows, under three main headings, the present volume and value of public works projects in Southern Region:-

Repairs both to the gas works and distribution systems continued during the month.

(c) Industries and Department.

The Regional Engineer is aiding the rehabilitation of cement works at VHO VITHUL. This is of major great importance, since the product is badly needed.

(d) Materials.

All requests for material are now being referred to the "Comore di Commercio".

132 tons of asphalt binder have been released for the manufacture of bituminous-emulsion (road-surfacing).

(e) Transport.

Trucks and tyres are badly needed. Road transportation facilities available are quite inadequate for the work in hand. Rail transportation is also difficult.

(f) Summary of Projects.

The following table shows, under three main headings, the present volume and value of public works projects in Southern Region :-

Table on pages 28 and 29.

1224

Military Service Projects in Southern Region

Type	Initiated during month	Cost (\$)	Completed during month	Cost (\$)
<u>Schemes of Military Priority</u>				
Trucks	20	11,252,357	26	71,275,070
Bridges	3	1,682,850	9	9,327,400
Miscellaneous	1	500,000	1	6,181,000
TOTAL	24	13,435,207	36	86,783,470
<u>Schemes other than of Military Priority for which the approval of AG/AS was required</u>				
Trucks	1	1,142,000	-	-
Bridges	3	784,000	7	3,000,000
Public Buildings	2	100,000	5	-
Covered, Labor Camps & Utilities	4	-	-	-
Miscellaneous	2	-	1	100,000
TOTAL	3	2,026,000	13	3,100,000

272

Public Works Projects in Southern Region

Project No.	Cost (lire)	Completed during month	Cost (lire)	In progress during month	Cost (lire)
Schedule of Military Priority					
22	11,492,350	20	11,573,870	121	107,731,322
5	1,682,850	9	9,321,900	62	111,911,668
1	580,000	4	6,181,000	6	23,100,500
20	42,575,000	11	100,872,770	152	315,818,516

Other items of Military Priority not for which the approval of AG/AB was required.

1	1,100,000	-	-	16	21,041,200
3	784,000	7	3,550,000	7	7,757,000
2	150,000	-	-	3	1,100,000
-	-	-	-	6	2,575,800
-	-	3	120,000	1	250,000
9	2,042,000	4	1,770,000	35	2,726,700

Spesifica handled independently by Italian Authorities.

Type	Initiated during November	Cost (Lire)	Completed during November	Cost (Lire)	In
Roads	10	20,321,600	12	11,115,900	During
Bridges	5	2,441,813	4	2,601,800	
Public Buildings	16	20,260,100	23	15,308,100	
Housing	19	5,751,500	6	2,057,813	
Sewers, Water Supply & Utilities	33	20,067,467	25	16,595,185	
Debris Removal	51	18,433,730	15	7,446,700	
Ecclesiastical	10	17,433,535	11	5,191,277	
TOTAL	171	105,817,815	103	61,490,355	

Summa handled independently by Italian authorities.

Initiated during November	Cost (Lire)	Completed during November	Cost (Lire)	In progress during November	Cost (Lire)
15	20,521,600	12	11,415,000	9	13,733,243
5	2,461,873	4	2,401,000	22	17,932,772
16	20,280,100	23	15,308,100	206	263,795,809
18	5,731,500	6	2,957,813	18	16,152,300
33	20,047,457	25	14,595,185	38	31,911,361
32	10,933,730	1	7,446,980	61	51,411,592
10	17,838,515	12	2,192,277	47	60,173,291
171	103,847,815	103	64,424,355	401	455,311,660

8. LALIO-UMBRIA REGION. - (Regional Engineer: Lt. Col. A. de C. S.
 CHITTY, V.C., M.C., R.E.)

(a) General Remarks.

Recent decentralisation and delegation of responsibility for works in UMBRIA is proving satisfactory, and is expediting administrative procedure necessary for the initiation and execution of projects. It was referred to in para. 23 (b) of the November report, in which it was noted that the Engineering Organisation for Umbria L. G. territory had been strengthened by uniting it (under immediate control of Major A. V. Evans, R.E.)

The following extracts are quoted from the Regional Engineer's remarks on the financing of projects by the Italian Government :-

"The allocations reported in my November Report for Housing and other Services amounting to 566 million have been CANCELLED and are again under RECONSIDERATION by the new MINISTER.

100 million lire was all voted by the Ministry of Agriculture under Decree signed 12th Oct., but not published until the Gazette of 2nd December.

Up to 31st December 40 Fonde had been received.

A few of these works have been started using borrowed funds.

The MAJORITY await financing, and after 4 months.

This is a deplorable situation and most disappointing to the Civilian who have worked hard to prepare the Projects.

Contractors despair of ever being paid by the Italian Government, and are withdrawing all work in the territory.

IT IS THEREFORE A REMEDY THIS URGENT and approval held up which are interdependent."

(b) Staff and Personnel.

No change in Allied Officer personnel since the previous month.

The Civilian Organisation in L. G. Territory has been reinforced by the addition of an Engineer and nine assistants (Staff of the Scottish Engineer for State roads.)

The beneficial results of this additional supervision have been amply demonstrated. Some improvement in supervision has also been effected in Italian Government territory; but an adequate staff of capable technicians will almost certainly be unobtainable as long as the salaria offered to temporary officials remains inadequate.

[The Regional Engineer has previously referred to this on a long-standing problem and has stated that the solution of

100 million lire are all cited by the Ministry of Agriculture under Decree signed 12th Oct., but not published until the Gazzetta of 2nd December.

Up to 31st December 40 funds had been received. A few of these works have been started using borrowed funds. The majority await financing, and after a month this is a dispiriting situation and it is disheartening to the Civil Engineers who have worked hard to prepare the projects. Contractors despair of ever being paid by the Italian Government, and are enquiring about work in other territory.

IT IS IMPERATIVE TO REPLY TO THE REQUESTS FOR APPROVAL AND APPROVAL HOLD UP WHICH ARE INTERDEPENDENT.

(b) Staff and Personnel.

No change in Allied Officer personnel since the previous month.

The Civil Engineers organized in A.S.D. Territory has been reinforced by the addition of one ad mess and nine assistants (Staff of the Scottish Engineer for State roads.)

The beneficial results of this additional supervision have been amply demonstrated. Large improvement in supervision has also been effected in Italian Government territory; but an adequate staff of capable technicians will almost certainly be unobtainable so long as the salaries offered to territory officials remain inadequate.

[The Regional Engineer has previously referred to this as a long-standing problem and has stated that the solution of it is a prerequisite to the acceleration of work (see para. 2) of the November Report.]

(b) of the November Report.]

271

= 30 =

(a) Highways and Bridges.

The highways of military priority are generally in a fairly good state of repair. Supplies of road-metal and bitumen are, however, badly needed for maintenance work in some places.

Four roads to the East and West of PRAWATI are particularly in need of attention, a shortage of stone being here the principal difficulty.

In the early part of December, bad weather "washed-out" some temporary culverts which were replacing demolished bridges on military highways. The possibility of this, owing to the inadequate water-way of the culverts, had been foreseen but the Military Authorities preferred to accept the risk in order that labour and materials might be devoted to other urgent work. There is now no alternative but to reconstruct the bridges at these places and much of the work has, therefore, had to be put in hand under most adverse seasonal conditions. The Regional Engineer has inspected 40 of the bridges in course of reconstruction and reports that progress is generally very satisfactory.

In CHITTI, much has had to be done in the matter of regularising and financing works which were taken over from Army HQ. L.C. B. Q. approval has been obtained for a credit of 200 million lire for these works. The previously imminent danger that contractors would suspend work for want of payments has thus been averted.

(b) Other Public Works.

(i) Housing.

There is a marked contrast in housing activity between the Provinces of PRAWATI and CHITTI. In the former, where there is no serious housing problem, no schemes were initiated during December, whereas the projects initiated in CHITTI Province amounted to 20 million lire and the work actually in hand was estimated at 40 million lire. The progress of housing in CHITTI Province has been good, although severely hindered by lack of roofing materials. Unfortunately, the "wash-out" of bridge 128, South of PRAWATI, in 13 December, has cut off the small supply of roofing tiles.

(ii) Sanitation.

Good progress was maintained on major schemes in the PRAWATI and CHITTI areas. Progress in the reconstruction of

the bridges at these places and much if the work has, therefore, had to be put in hand under the most adverse seasonal conditions.

The Regional Engineer has indicated that the bridges in course of reconstruction are in a state of progress in generally very satisfactory manner.

In 1961, much has had to be done in the matter of regularizing and financing work which were taken from 1959. A.C. 100 approval has been obtained for a credit of 200 million lire for these works. The previously imminent danger that contractors would suspend work for want of payment has thus been averted.

(d) Other Public Works.

(i) Housing.

There is a marked contrast in housing activity between the Provinces of PUGLIA and UMBRIA. In the former, where there is a serious housing problem, no schemes were initiated during December, whereas the projects initiated in UMBRIA Province amounted to 20 million lire and the work actually in hand was estimated at 10 million lire. The progress of re-housing in UMBRIA Province has been good, although severely hindered by lack of roofing materials. Unfortunately, the "wash-out" of bridge 128, South of PERUGIA, on 13 December, has cut off the small supply of roofing tiles.

(ii) Sanitation.

Good progress was maintained in major schemes in the PONTINE MARSHES area. Progress in the reconstruction of the flood-gates at POMERANCE is, however, accompanied by a lack of funds. Although, as will be understood from para 16 of the November report, the completion of this particular work is not a matter of particular urgency, the financial delay that has arisen is being investigated.

Other "sanitation" schemes approved in principle (by A.C.) in this Region amount to estimated value of 630 million lire, but very few of them have received Ministerial approval and none has yet been financed.

(42) Miss Clinton.

[illegible]

500-224-1111 • 1-800-551-1111

(c) Wilmington Trust, Inc.

20. Lots of people at the meeting, in order to minimize the likelihood of another incident of the town, and in the hands of the Italian Ministry of Public Works, where they still await approval. A center of the clearing the several suburbs from the terribly demolished area has been set by the anti-civil.

(g) Probability.

The month next spring a general fair went in power, notwithstanding the fact that the governing assembly have risen from 30.6 to 41.5 in the present year.

killed.

A civilian contractor has spent an area of 150,000 sq. m. during the past year and has lifted 150 min. e.

(iv) Emergency, etc.

Repairs to the drainage system of the city of Rome have continued, and are now about 75% complete. Some difficulties in imported fuel, a lack of suitable vehicles for supplying emergency, etc., and a very few other minor items are being worked.

(v) Disaster Relief.

Work at preventing further damage has been slowed down by inclement weather. However, the first fuel-lift, one of 1000 tons, was entered the harbor and then unloaded, but there was a dangerous delay in clearance between the head of the vessel and some of the remaining submerged wrecks.

Dr. Vito F. P. was in the office, in order to receive the likelihood of further damage of the town, and in the hands of the Italian Ministry of Public Works. There they still await approval. A center of the clearing the official of the office for the the partially damaged area has been left by the Radio Civilia.

(vi) Disaster Relief.

The center has shown a general large amount in power availability in the region. The government property have been given 12,000 tons of the disaster relief.

Recovery was then 100%. If transferred a lines were repaired during December, which shows a considerable improvement on the progress obtained in November. A total of 1,400 tons of transferred and distributed a lines remain to be repaired. 44.5% of the lines in the region are in service.

Early in December the electrical situation in Rome was difficult, mainly in connection with the electrical lines in military installations, the electrical having approx 270 closely to peak-promotion.

The restoration scheme for Rome City has worked well. The restoration of only 4% of the numbers are in the road excesses over the nation. It is known, however, that motors are being repaired with in order to satisfy the recording.

(e) 0.495 ± 0.011 and 0.495 ± 0.011

• 304 •

Despite the limitations due to failure of electric power in pumping stations, with the A.C.T., and the legacy Parole Commission's systems have given to the City to raise their full proper rates of financing.

Good progress has been made in the rehabilitation of the VINCENNO pumping station of the Loire-Nord-Ouest.

The Mayor of NYC has appointed Professor Orlowski as advisor to the Council on water supply matters, and as liaison official between the Regional Engineer and the City authorities. This action is warmly welcomed.

300

The order supplier has continued to supply goods to the company for the past daily, it is today. A number of goods are supplied at Christmas.

Out of \$10,000 expended, \$4,000 was reported to have maliciously tampered with this system in order to stop an on-line strike. It was at the expense of their fellow workers. The surplus of these payments are being cut off. A general strike order is scheduled to be implemented in a 10 day period.

(四) 讨论:

[illegible]

— 200 —

Although the control of materials (other than Allied imports) was handed over to the Italian Government on 1 Nov 44, by 1 December no administration had been set up to handle the work to any of the provinces of this Region. The Regional Inspector says: "I do not understand why steps of affairs have been definitely initiated after 3 months delay that all outstanding demands, including mining for iron and the 3,000 tons of cement, have had to be re-liquidated non-existent Italian Chetaro."

The supply of beds for sick or military highway has
been cut off. But there are beds for civil needs.

THE UNIVERSITY OF CHICAGO

The ROK's economy has continued to supply gas to its consumers for the last week, at mid-day. A little extra was supplied at Christmas.

Out of 150,000 consumers, 24,000 are reported to have partially temporarily with their meters in order to obtain an hourly rate of gas at the expense of their fellow citizens. The supplies to these consumers are being cut off. A gas-rate limit scheme is scheduled to come into operation on 10 January.

(b) Highways.

Work has started on repair of the highway between Carinchedil and Alimied, a length of 4 Km.

(c) Maintenance.

Although the control of materials (under the Allied Command) was handed over to the Italian Government on 1 Nov 64, by December the administration had been set up to handle the work in any of the provinces of this region. The Regional Engineer says: "I have been disappointed in the state of affairs. I have been definitely informed that all outstanding demands, including claims for 1000 and the 1,000 tons of cement, have had to be re-bid for to the existing Italian Government."

The supply of bricks for work on military highways has almost met requirements, but none available for civil needs.

Glass is virtually unobtainable and there is a serious shortage of sawn timber. A few paving tiles are available in (un)but, but none in the State.

The supply of bitumen for military highways is improving, but there is as yet none for non-military roads.

(d) Transport.

The Regional Engineer criticizes his colleague remarks on the road transport and their situation by saying: "The situation remains an acute problem affecting every phase of work."

(i) Summary of Findings.

The following table shows, under three main headings, the present value, as value of public works projects in Pacific-Mexico Region.

Table on page 15 and 16.

Public Works Projects in Basic-Needs Section.

Type	Initiated during Month	Cost (lire)	Completed during Month	Cost (lire)
Schemes of Military Priority				
roads	5	1,846,000	3	5,255,000
bridges	29 ✓	49,325,000	11	9,123,000
reinforcing walls & parapets	2	2,520,000	-	-
TOTAL	15	53,691,000	14	14,378,000
Schemes other than of Military Priority but for which the approval of AC/SEC was required				
roads	29	11,550,250	28	8,052,040
bridges	21	16,545,250	14	11,380,000
Public buildings, Schools, etc.	15	1,076,000	13	1,691,516
Public Hospital, etc.	35	27,115,000	2	6,194,000
Land reclamation, Water Works & Sewerage	5	2,060,000	8	7,075,000
housing	26	17,705,000	-	-
TOTAL	111	76,371,530	77	34,362,756

268

Public Works Projects in Lazio-Umbria Region.

Estimated Months	Cost (Lire)	Completed during month	Cost (Lire)	In progress during month	Cost (Lire)
Summary of Military Priority					
5	1,824,000	3	5,345,000	26	102,046,000
29	13,328,000	11	9,123,000	175	234,100,000
3	2,520,000	-	-	-	-
7	23,641,000	14	11,468,000	201	312,115,000
Other than of Military Priority but for which the approval of AS/AC was required.					
29	11,534,250	28	6,052,040	52	30,711,000
24	16,565,280	14	12,382,000	93	90,101,372
15	1,036,000	15	1,691,516	40	20,165,100
31	27,415,000	9	6,106,000	38	1,919,000
5	2,000,000	8	7,075,000	25	69,854,812
16	17,705,000	-	-	11	10,131,000
111	70,371,530	77	37,307,556	259	215,332,984

Schemes handled independently by Italian authorities.

Type	Initiated during year	Cost (Lire)	Completed during November	Cost (Lire)	done
Roads	4	1,148,000	3	2,120,000	
Bridges	9	15,136,000	5	2,080,000	
Public buildings, schools, etc.	21	10,158,900	16	1,481,812	
Leisure houses, etc.	17	32,281,000	7	2,861,840	
Sanitation, water works & drainage.	5	1,706,000	12	12,988,000	
Drainage	56	27,658,150	-	-	
TOTAL	112	88,548,050	43	25,182,752	

Summa handled independently by Italian authorities.

Attained up to year	Cost (Lire)	Completed during November	Cost (Lire)	In progress during November	Cost (Lire)
4	1,220,000	3	2,120,000	9	36,272,500
9	17,136,000	5	2,000,000	29	29,805,000
21	10,195,000	10	4,113,712	117	125,507,100
18	3,281,100	3	2,369,550	62	56,591,000
5	1,778,000	13	13,925,000	21	37,215,200
36	27,618,190	-	-	57	101,951,500
112	88,518,050	12	23,422,752	255	121,312,300

19. ABRUZZI-MARCHE REGION - (Regional Engineer: Lt. Col. C.A. LATIMER, C.E.)

(a) General Remarks.

North of the Eighth Army control line, which follows Route 9 from Pano, considerable difficulty is experienced in executing by civil contract any works other than of Military importance.

There is a noteworthy difference between the policies of C.E. No. 1 District and C.E. No. 3 District in regard to road-works. Whereas the former, who is in the more forward territory, wishes to place the initiative for road maintenance and repair with the Regional Engineer at the earliest possible time, the latter, who is in the rear, maintains that such initiative must remain with the Army, the C.E. making decisions regarding Category "A" roads, and C's, R.E. according on Category "B" roads. In regard to this the Regional Engineer says: "Either system is acceptable so long as it understood by all concerned."

At the request of the Devastated Areas Committee, the Regional Engineer ascertained and supplied considerable information, copies of which he also sent to the Headquarters of this Subcommittee.

(b) Staff and Personnel.

Major J.C. Rively, having been re-assigned, is no longer on the staff of the Regional Engineer. Capt. E. Milani, of the Italian Army, has taken over Major Rively's duties in connexion with the roads of ABRUZZI COMPTINGING. Capt. H.C. East, Utilities Officer, reported for duty and is now assisting Major J.E. Peden, Electrical Officer, in MARCHE, but he will proceed to take up duties at ASCOLI as soon as transport can be provided for his use at that station. Major J.S. Bennett, who is temporarily attached, continues to render valuable assistance in Public Works and Utilities in ABRUZZI.

In regard to the civilian staff of the Italian Authorities, particularly the Genio Civile, the Regional Engineer says:-

"An appreciable let-down has occurred in ABRUZZI since the change in policy permitting fuller control by Italian Authorities. This trend has substantially been contributed to by the existing shortage of transport and the tyre situation. Also, salary adjustments must be made for Italian Civil Personnel if they are expected to function efficiently. They in most cases receive less than allowances under the new schedule. This is causing grave distress and an increasing shortage of Engineers. Many spend more time in civil activities, to augment their

"A" roads, and C's. R.E. deciding on Category "B" roads. In regard to this the Regional Engineer says: "Either system is acceptable so long as it understood by all concerned."

At the request on the Devoated Areas Committee, the Regional Engineer ascertained and supplied considerable information, copies of which he also sent to the Headquarters of this Subcommittee.

(b) Staff and Personnel.

Major J.C. Rivaly, having been re-assigned, is no longer on the staff of the Regional Engineer. Capt. E. Milani, of the Italian Army, has taken over Major Rivaly's duties in connection with the roads of ARRUZZI Compartimento. Capt. H.J. East, Utilities Officer, reported for duty and is now assisting Major J.E. Podes, Electrical Officer, in VARESE, but he will proceed to take up duties at ASCOLI as soon as transport can be provided for him and at that station. Major J.S. Bennett, who is temporarily attached, continues to render valuable assistance to Public Works and Utilities in ARRUZZI.

In regard to the civilian staff of the Italian Authorities, particularly the Genio Civile, the Regional Engineer says:-

"An appreciable let-down has occurred in Ancona since the change in policy permitting fuller control by Italian Authorities. This trend has substantially been counteracted to by the existing shortage of transport and the type situation. Also, salary adjustments must be made for Italian Civil Personnel if they are expected to function efficiently. They in most cases receive less than laborers under the same schedule. This is causing grave distress and an increasing shortage of Engineers. Many spend more time in other activities, to augment their salaries, than official duties."

(The Regional Engineer of Lacio-Umbria makes a similar complaint.)

(c) Highways and Bridges.

About half of the road and bridge projects turned over to Regional A.M.G. from Eighth Army A.M.G. have now been put into proper documentary form for the initiation of a regular procedure, and have been forwarded to the Headquarters (of the Sub-Commission) for approval. The remainder will be similarly dealt with, and many of them are in process of documentary preparation.

The Regional Engineer has experienced difficulty in taking over these projects and there is good reason to assert that Eighth Army A.M.G. might well have been more co-operative. According to the Regional Engineer, the entire transition was possible only because Capt. J.B. Walsh had personal knowledge of the works that had been in progress.

New work on Military Highways and bridges in general progressed satisfactorily, but the extensive maintenance required by bitumen-surfaced roads under their present volume of military traffic cannot be adequately dealt with owing to lack of transport. On the whole, therefore, the maintenance of highways must be described as poor.

Among non-military highways, the necessity of opening the road to SCANN (Aquila Province) and other isolated communities is at present of outstanding urgency. This work will involve the construction of a tunnel, 30 metres long, to replace a mountain-side road cut that has been destroyed, and will also necessitate the reconstruction of several bridges. A request for the execution of the tunnel-work was made to 21 C.R.E. who has given assurance that he will provide a working party.

Snow-removal preparations were made for all threatened roads. P.O.L. Depots, with trucks and equipment, have been established in readily accessible locations.

Several schemes for the erection of wooden bridge structures were submitted for approval in order to permit resumption of communications with isolated places. These wooden bridges are proposed for the sake of speed, where the building of permanent structures would be indefinitely delayed by lack of cement and other materials.

(d) Other Public Works.

Emergency work using projects are progressing in Aquila Province and several similar projects have been approved for execution in other Provinces. Recorded collectively, however, the progress in repair of buildings has not come up to expectation during the past month, principally on account of lack of materials.

progressed satisfactorily, but the extensive maintenance required by bitumen-surfaced roads under their present volume of military traffic cannot be adequately dealt with owing to lack of transport. On the whole, therefore, the maintenance of highways must be described as poor.

Among non-military highways, the necessity of opening the road to SCARNO (Aquila Province) and other isolated communities is at present of outstanding urgency. This work will involve the construction of a tunnel, 90 metres long, to replace a mountain-side road cut that has been destroyed, and will also necessitate the reconstruction of several bridges. A request for the execution of the tunnel-work was made to 21 C.A.S. who has given assurance that he will provide a working party.

Snow-removal preparations were made for all threatened roads. P.O.L. Depots, with stocks and equipment, have been established in readily accessible locations.

Several schemes for the erection of wooden bridge structures were submitted for approval in order to permit resumption of communications with isolated places. These wooden bridges are proposed for the sake of speed, where the building of permanent structures would be indefinitely delayed by lack of cement and other materials.

(d) Other Public Works.

Emergency road-using projects are progressing in AQUILA Province and several similar projects have been approved for execution in other Provinces. Regarded collectively, however, the progress in repair of buildings has not come up to expectation during the past month, principally on account of lack of materials.

(e) Electricity.

Reconstruction of power stations and transmission lines has continued to make satisfactory progress. In the four Northern Provinces, 20 C.R.E. works has considerably assisted the "UNIS" and other electric power-undertakings by providing materials, labour and transport. At PONTE CENTRALE (TOLentino), a generator of 350 KW capacity - the first to the re-commissioned at that station - has been restored to operation. Work on the

restoration of a second set at the same station, and two sets in the near by station of ALLONATA, is in hand. In the restoration of power transmission, effort has concentrated on the ANCONA - RANO 30 K.V. line which is now repaired as far as SEMICALLIA. When this has been completed attention will be transferred to the ANCONA - VERDE line, which is to operate at 5 K.V. Repairs are progressing at the GALLIETO sub-station which will be the receiving point for bulk-allocation of power to this region from the TIRMI Group, when the GALLIETO power stations has been put into operation.

In ABRUZZI less obvious progress has been made. Repairs to plant in the PARA - PILLORUM - PIZZARA power-station were completed during the month, but when the drive motor was turned on the head-conduit failed, thus delaying operation of the station by another 15 days for the necessary repairs. In the VERDE Group two small alternators of 160 and 200 KW capacity burned out. However, repairs to another alternator of 750 KW capacity have been finished and it has been running on a light load, prior to being put on full duty. Repair work on the 60 KV line from CURELLO to LAMBIANO is nearing completion and progress has also been made on the 30 K.V. line from CHIETI to SCARFA. Lack of transport for collecting salvaged materials from other lines has caused delays.

In AQUILA Province a 250 KW generator at PETTORIANO has been started up and the whole of SUMONA is now continuously supplied. Repairs to a second similar set are nearing completion, and it will be put into operation as soon as possible in order to ease the situation at AVEZZANO.

Discussions are being held with the Regional Legal Officer with a view to producing uniform Provincial (AMC) and Prefects' orders, to be applied throughout the Region, for restricting the use of electricity. These orders will be based on AMQ Circular AC-575/174 CDS-O, dated 31 Oct. 44. The extent to which Prefects can be compelled to enforce these orders is under consideration.

Improved facilities for industrial consumers in ANCONA Province are dependent upon the acquisition of power from GALLIETO. The allocation has already been made but the GALLIETO station is not yet in operation. Meanwhile military demands are absorbing most of the limited amount of power generated locally.

A breakdown in the S.M.E. 150 KV line between POGGIA and SANI, together with the failures at VERDE and PARA PILLORUM PIZZARA, already mentioned, created serious difficulties in CHIETI, PESCARA and TIRMI but the situation has now improved.

VENDE Group two small alternators of 150 and 200 KW capacity burned out. However, repairs to another alternator of 750 KW capacity have been finished and it has been running on a light load, prior to being put on full duty. Repair work on the 80 KV line from CUPELLO to LANTIANO is nearing completion and progress has also been made on the 30 K.V. line from CHIETI to SCAPA. Lack of transport for collecting salvaged materials from other lines has caused delays.

In AQUIIA Province a 250 KW generator at VETRORIANO has been started up and the whole of SULKOMA is now continuously supplied. Repairs to a second similar set are nearing completion, and it will be put into operation as soon as possible in order to ease the situation at AVEZZANO.

Discussions are being held with the Regional Legal Officer with a view to producing uniform Provincial (ANC) and Prefects' orders, to be applied throughout the Region, for restricting the use of electricity. These orders will be based on AFHQ Circular AO-673/171 G18-0, dated 31 Oct. 44. The extent to which Prefects can be compelled to enforce these orders is under consideration.

Improved facilities for industrial consumers in ANCONA Province are dependent upon the acquisition of power from GALLIETO. The allocation has already been made but the GalliETO station is not yet in operation. Yearly military demands are absorbing most of the limited amount of power generated locally.

A breakdown in the S.M.E. 150 KV line between TOGGIA and BARI, together with the failures at VERDE and FABA FILIPPO PIETRI, already mentioned, created serious difficulties in CHIETI, PESCARA and TERAPO but the situation has now improved.

(f) Materials.

In MARONE, no cement works are in operation, and the only brick and tile works that are producing are those that have been supplied with coal by the C.R.E.

In ARRUZZI, confusion exists over the prices established for bricks and tiles. In some instances, the manufacturer's fuel costs alone exceed by several times the established sale value of his products. There is also a prevalent reluctance to

manufacture bricks and tiles during the winter, especially in unheated establishments.

(g) Transport.

The following are the Regional Engineer's own remarks on this subject:-

"Lack of transport continues to be chief retarding factor in the Region and daily grows steadily worse. No tires or batteries for civilian transport have as yet been furnished. Formal requests and requisitions bring no results. The flow of construction materials has almost stopped on all other than Military projects and those are seriously retarded. Transportation for Officers for duty-performance in

this Section as well are not available; as in the case of Captain Best, who was recently assigned to this Section. The Regional Engineer has been advised that Capt. Best cannot be furnished a car to take forward with him to his assignment in Marche because there is none available in the Region. There is no point in sending more Engineers to this Region unless transport is sent here with them."

(h) Miscellaneous.

The following remarks, being of particular interest, are quoted verbatim from the Regional Engineer's report:-

"Difficulties have been experienced in the Abruzzi Comptartimento because Italian Financial Agencies were unprepared to take over from AXS/AC. Funds not being readily available when required. This has created several delays but is being rapidly settled. Through the assistance of the Regional Finance Officer working in cooperation with this P.W. Section.

P.C.I. Supplies have improved and a system devised whereby stocks are utilized more wisely to the purpose intended. Failure of civilian transport is lessening the normal demands.

The labor situation, as in the last period, remains very unstable. Unsubsidized black-market manipulation, inadequate housing in many localities, little or no supply of fuels, insufficient food, oil, and clothing is contributing to an increasing unrest, the outcome of which is unpredictable."

(i) Summary of Projects.

The following table shows, under three main headings, the present volume and value of public projects in Abruzzi-Marche Region:-

1 2 4 9

Captain Post, who was recently assigned to this Section. The Regional Engineer has been advised that Capt. Post cannot be furnished a car to take forward with him to his assignment in Marche because there is none available in the Region. There is no point in sending more Engineers to this Region unless transport is sent here with them."

(h) Miscellaneous.

The following remarks, being of particular interest, are quoted verbatim from the Regional Engineer's report:-

"Agriculture has been experienced in the Abruzzi Compartimento because Italian financial agencies were approached to take over from MGC/AC, funds not being readily available when required. This has created several delays but is being rapidly settled, through the assistance of the Regional Finance Officer working in cooperation with this R.E. Section.

P.O.L. Supplies have improved and a system devised whereby stocks are utilized more nearly to the purpose intended. Failure of civilian transport is lessening the normal demands.

The labor situation, as in the last period, remains very unstable. Unwarmed black-market manipulation, inadequate housing in many localities, little or no supply of fuels, insufficient food, oil, and clothing is contributing to an increasing unrest, the outcome of which is unpredictable."

(i) Summary of Projects.

The following table shows, under three main headings, the present volume and value of public projects in Abruzzi-Marche Region:-

Table on pages 41 and 42.

- 10 -

12501

Table 2005 Projects in August-1980 Region

Type	Initiated during month	Cost (\$1000)	Completed during month	Cost (\$1000)	In cur
Schemes of Military Priority					
roads	-	-	1	300,000	
bridges	10	2,110,500	26	16,801,500	
TOTAL	10	2,110,500	27	17,101,500	
Schemes other than of Military Priority but for which the approval of AG/AD was required					
roads	-	-	27	13,574,400	
bridges	11	10,324,000	64	13,750,700	
public buildings	2	310,000	1	1,100,000	
Sewer, water works & utilities	1	580,000	-	-	
TOTAL	13	11,214,000	92	28,425,100	

Public Works Projects in Agricultural Region

Cost (lire)	Completed during month	Cost (lire)	In Progress during month	Cost (lire)
Schedule of Military Priority				
-	1	305,000	-	-
2,510,500	26	16,801,500	31	30,751,000
2,10,500	27	17,101,500	31	30,751,000
Not of Military Priority but for which the approval of C/AFU was required.				
-	27	15,574,600	33	15,552,000
10,500,000	4	1,735,700	22	33,115,000
510,000	1	1,100,000	7	5,885,000
680,000	-	-	4	1,503,000
11,794,500	32	28,410,300	66	66,845,000

12321

Revenues Handled Locally by Italian Authorities

Type	Initiated During November	Cost (Lire)	Completed During November	Cost (Lire)	Financing
Police	5	2,544,000	9	1,465,000	
Police Buildings	7	5,028,900	7	2,627,000	
Housing	20	13,477,211	-	-	
Water, Water Works & Utilities	-	-	11	417,000	
Total	32	21,591,111	16	4,115,000	

Schemes handled directly by Italian authorities

Initiated during November	Cost (lire)	Completed during November	Cost (lire)	In progress during November	Cost (lire)
5	3,042,000	4	1,257,000	13	2,110,925
7	3,000,000	25	2,657,000	21	6,120,800
23	19,400,000	-	-	9	167,000
-	-	11	117,000	6	581,300
12	21,591,175	45	4,317,000	69	10,200,175

20. SARDEGNA REGION - (No Rational Engineer)(a) Personnel.

Ing. Buttini, the civilian official of the Italian Government who was appointed to represent this Sub-Commission in Sardinia, travelled to Rome on an official visit some weeks ago and has not yet returned.

In forwarding a report prepared by Ing. Buttini's Secretary, the Rational Commissioner says: "The absence of Ing. Buttini is detrimental to the Public Works Organization of the Island as he has the final say in all fresh projects". (Ing. Buttini holds the head appointment, as "Provveditore" for Sardinia).

(b) Highways and Bridges.

Road maintenance, entrusted to the "Ufficio Sussidiario del Genio Civile per la Viabilità", has been regularly carried out, but the Italian engineers find difficulty in exercising proper supervision, owing to lack of transport and a very small allowance of petrol.

(c) Other Public Works.

Water supply in Cagliari has continued satisfactorily and it is now reckoned that 80% of the original agreed programme has been carried out. The number of vehicles available for this work has unfortunately suffered a reduction.

Repair of buildings has also continued and a number of schools in Cagliari are now usable. There is, however, still a great shortage of glass.

The plan, mentioned in the November Report, for repairing 30 slightly damaged houses is already in course of execution and other work on restoration of private buildings has proceeded without interruption.

Approval of the "500 million lire" program of land-reclamation and anti-marshland works, mentioned in the November Report, is still awaited.

(d) Electricity.

Rehabilitation of the higher FIUMEDDUA hydro-electric generating station has shown further progress, but work on the dam has suffered interruption owing to lack of cement and transport facilities. Reinstatement of the distribution network in Cagliari has also steadily progressed, and the street-lighting system has been further extended.

del Genio Civile per la Vigilanza", has been regularly carried out, but the Italian engineers find difficulty in exercising proper supervision, owing to lack of transport and a very small allowance of petrol.

(c) Other Public Works.

Debris clearance in CAGLIARI has continued satisfactorily and it is now reckoned that 80% of the original cleared area has been carried out. The number of vehicles available for this work has unfortunately suffered a reduction.

Repair of buildings has also continued and a number of schools in CAGLIARI are now usable. There is, however, still a great shortage of glass.

The plan, mentioned in the November Report, for repairing 99 slightly damaged houses is already in course of execution and other work on restoration of private buildings has proceeded without interruption.

Approval of the "92 million lire" program of land-reclamation and anti-salarial works, mentioned in the November Report, is still awaited.

(d) Electricity.

Rehabilitation of the Higher FLEMMOSA Hydro-electric generation station has shown further progress, but work on the dam has suffered interruption owing to lack of cement and transport facilities. Reinstatement of the distribution network in CAGLIARI has made steady progress, and the street-lighting system has been further extended.

(e) Other Public Utilities.

Further rains have improved the water supply system and it is estimated, under restrictions now in force, that the reservoirs of the CAGLIARI supply contain enough water to meet the needs of the City up to the end of February.

About one quarter of CAGLIARI is now supplied with gas, and service to the Civil Hospital has also been restored.

(f) Materials.

The "Inventories" previous complaint of the serious scarcity of timber and glass is even more vigorously reiterated.

(g) Transport.

The availability of transport sufficient vehicles to enable public works officials to carry out their duties is again stressed.

1237

Declassified E.O. 12356 Section 3.3/NND No. 785019

21. TOCHAKA REGION - (Regional Engineer: Major F.S.L. ELL, R.E.)

(a) General Remarks

The volume of work of all kinds has continued to increase, but the augmentation of the Regional Engineer's staff by attaching more officers on temporary duty will make for better control of field work and the transport facilities can be obtained to enable them to cover the districts to which they have been allocated. The Regional Engineer says that provincial Commissioners have been most helpful in this respect, realising that an Engineer's Officer is useless unless he is mobile.

Bad weather conditions experienced during December greatly obstructed work on flood-control, and on repair of power transmission lines.

(b) Staff and Personnel

Two changes were made in the assigned officer personnel during the month - Capt. A.D. Seal (Highways) reported for duty and has been stationed at Muzer for work in the area of B4 C.R.E. works. Capt. E. Smith (Electrical) was assigned to Fifth Army A.D.C.

In order to take full advantage of the officers attached on temporary duty, the supervision of works has been largely decentralised, and Engineering Officers are now stationed in the provinces of GHESSE, INKIZO, EUGGA and SIMA. Another officer, operating from the quarters of the Regional Engineer, is working on roads and bridges in the area north of FLORENCE.

The assigned officers are employed on general supervision and in control of Italian civilian personnel, in order to ensure continuity of administration when officers on temporary duty are withdrawn.

(c) Highways and Bridges

The increased bridge-building program foreseen in previous reports is now commencing. In addition to the great number of small Colonial bridges and culverts, several large bridges are shortly to be put in hand.

Besides the work being carried out under A.D.C. arrangements for military units in Fifth Army, No. 1 District, and P.E.C. areas, the two latter formations have now decided to raise troops previously employed on maintenance of certain

(1) Staff and Personnel.

Two changes were made in the assigned officer personnel during the month: Capt. A.M. Saul (Hidways) reported for duty and has been stationed at ARZZZ for work in the area of E.E.B. works. Capt. E. Smith (Electrical) was assigned to Fifth Army A.E.B.

In order to take full advantage of the officers attached as temporary duty, the supervision of works has been largely centralized, and Engineer Officers are now stationed in the Province of Grosseto. ARZZZ, UOZZZ and SIMA. Another officer, operating from Headquarters of the 4th and 5th, is working on roads and bridges in the Army area north of FLORENCE.

The assigned officers are employed as general supervision and in control of Italian civilian personnel, in order to ensure continuity of administration when officers on temporary duty are withdrawn.

(c) Hidways and Bridges.

The increased rebuilding program forecast in previous reports is now commencing. In addition to the great number of small Colonel Bridges and Culverts, several large bridges are shortly to be put in hand.

Besides the work being carried out under A.M.S. arrangements (for military units in Fifth Army), No. 1 District and E.E.B. areas, the two latter formations have now decided to relieve troops previously employed on maintenance of certain military highways and to hand over the work to A.M.S. Engineers up to new Army units have utilized the "Gentonieri", reinforced with extra local labour, the new arrangement will necessitate the employment of contractors for maintenance work and will impose increased responsibility for supervision on both A.M.S. Engineer Officers and the Basic Civil officials.

The action of flood waters in the bridge over the River Arno near Grosseto has resulted in clear evidence of the remaining brick arches is failing, and that immediate action will have to be taken if the House is to remain open.

263

A considerable amount of work will be necessary on this bridge. Other bridge works of importance are being discussed with U.S. Army Group. It is proposed to replace certain bridges on the river area at FLORENCE with "PILONE" bridges, 3,000 ft. temporary excellent, and to rebuild two of the larger bridges for carrying through traffic.

(c) Other Public Works.

At the request of the Agricultural Division, repair works over large land drainage areas (bonifiche) have been authorized during the month, particularly the "bonifiche" of FUGERINO and V. DI CHIANA. In the case of the latter, the U.S.A. have co-operated well; several culverts and small bridges, previously filled for road, reconstruction of the railway to AREZZO, have been opened up to allow passage of flood waters.

Numerous repair projects for emergency housing have been put in hand. There is also a steady succession of first-aid repairs etc. required by the Fine Arts and Monuments Division.

The Labour Division has asked the Regional Engineer to modify his Public Works project, with a view to reducing unemployment in certain areas. All possible co-operation is being given.

(c) Electricity.

The SAN BENEVOLO power station has now been restored to operation, but output is much restricted because hydro-water is obtainable only from two small sources. The main source of water and the conduits have been severely damaged, and are still in their hands. Approximately 1,000 KW are available from the station, and immediate Base Section has ordered that this energy is to be transmitted to LISA, LIVORNO, GROSSETO and AREZZO.

Some further difficulties have been experienced at the SAN BENEVOLO power station, where a second 3,000 KW generator set is now giving trouble.

The 125 KV transmission line, SAN BENEVOLO-AREZZO, is now under construction. All towers are in place, and the line itself is now being restored.

The 125 KV line, SAN BENEVOLO-TAVERNUOLA, has been slow down, to the inability of transport to reach the line, possibly, parts of it under recent bad weather. Completion is, nevertheless, expected early in January.

The 125 KV line, TAVERNUOLA-LIVORNO, is also expected to be finished early in January.

have been ordered to allow passage of flood waters. Numerous repair jobs for emergency housing have been put in hand. There is also a steady succession of first-aid repairs etc. required by the Fine Arts and Monuments Division.

The Labour Division has asked the National Institute to modify his Public Works programme, with a view to relieving unemployment in certain areas. All possible co-operation is being given.

(a) Electricity.

The Milan DELLA ROCCA power station has not been restored to operation, but output is much restricted because live-water is obtainable only from two small sources. The main source of water and the conduits have been severely damaged, and are still in very poor state. Approximately 1,000 KW are available from the station, and Laminar Base Section has ordered that this energy is to be transmitted to Milan, Livorno, Grosseto and Pisa.

Some further difficulties have been experienced at the LAMINAR Base station, where a second 3,000 KW generator set is now being trouble.

The 125 KV transmission line, Milan DELLA ROCCA-S. ERMINGO, is now near completion. All towers are in place, and the line itself is now restored.

Work on the 125 KV line, S. ROLANDO-TAVIATTO, has been slow down to the inability of transport to reach the line, especially parts of it being recent bad weather. Completion is, nevertheless, expected early in January.

The 125 KV line, TAVIATTO-RIVIERA, is also expected to be finished early in January.

The 60 KV line, Milan DELLA ROCCA-PESCAIA, is being inspected, and progress is reported in the light of lines from under and around the towers.

The Electricity Rationing Board continues to control the allocation of power in the City of Florence, and in certain other districts for the City supply.

Voltage and frequency "trips" are causing difficulty, particularly in the operation of water-pumping stations and olive-oil separators.

(f) Other Public Utilities.(1) Water.

At the request of the Public Health Officer of Fifth Army A.M.G., water-supply repair works have been put in hand at FIMATO, in addition to three major schemes for repairing the main aqueduct from the Appennine Tunnel to FIMATO. Water supply rehabilitation projects are also in hand at PISA and FISTOIL.

(ii) Gas.

Preparations for reactivating the FLORENCE gasworks continue, but the regular supply of coal that will be essential for operation must depend on completion of the railway line to FLORENCE.

(f) Materials.

Confusion caused by unregulated "pilocking" of materials by various formations, and even by more than one officer of the same formation, is resulting in wastage of time and transport.

(h) Transport.

The Regional Engineer says: "The remarks made in previous reports relative to necessity for action to obtain tyres and tubes for civilian officials, and our own officers, cannot be too strongly reiterated."

(i) Summary of Projects.

The following table shows, under two main headings (Military and non-military), the present volume and value of public works projects in TOSCANA Region:-

Table on page 48.

(c) Materials.

Confusion caused by unregulated "blocking" of materials by various formations, and even by more than one officer of the same formation, is resulting in waste of time and transport.

(d) Transport.

The National Engineer says: "The remarks made in previous reports relative to necessity for action to obtain tyres and tubes for civilised officials, and our own officers, cannot be too strongly reiterated."

(e) Summary of Projects.

The following table shows, under two main headings (Military and non-military), the present volume and value of public works projects in TOSOMA Region:-

Table on page 48.

1264

Declassified E.O. 12356 Section 3.3/NND

No.

785019

Public Works Projects in Togana Region.

Type	Initiated during Month	Cost (Lire)	Completed during Month	Cost (Lire)
Schedule of Military Priority				
Roads	1	3,000,000	18	37,488,350
Bridges	12 ✓	9,000,000	5	1,552,000
Water supply	2	5,000,000	-	-
Total	13	17,000,000	23	38,940,350
Schedule other than Military Priority but for which the approval of AG/CG was required.				
Roads	-	-	5	1,016,217
Bridges	1	1,435,000	7	1,163,625
Sewers, water works, aqueducts, flood control, etc.	13	2,985,000	3	200,000
Public buildings	11	6,410,000	2	325,000
Public buildings, schools, hospitals, etc.	17	6,600,000	-	-
Housing	-	-	-	-
Harbour	-	-	-	-
Total	41	22,435,000	15	4,305,042

261

12481

Public Works Projects in Toscana Region.

Initiated by Month	Cost (Lire)	Completed during Month	Cost (Lire)	In progress during Month	Cost (Lire)
Sources of Military Priority					
4	3,561,000	16	27,108,350	5	5,165,000
12 ✓	2,650,000	5	1,352,000	12	27,227,000
2	5,400,000	-	-	3	2,410,000
10	10,204,000	23	39,040,350	20	36,301,000
Large Military Priority but for which the approval of AG/AGC was required.					
-	-	5	1,616,217	3	700,000
1	1,434,000	7	1,163,525	53	23,501,355
1	5,726,000	1	200,000	85	15,637,115
1	6,115,830	2	625,000	70	29,979,757
1	6,500,571	-	-	11	1,107,204
-	-	-	-	2	753,000
-	-	-	-	2	1,860,000
11	2,655,926	15	4,305,042	260	12,851,393

22. CHIVILA REGION - (Regional Engineer Major Wm. SPURRY.)(a) General Remarks.

All liberated parts of Chivila Region are entirely within Army Zones VII, therefore, there is no yet no active Regional A.M.S. Administration. Consequently, the Regional Engineer and his staff are working as part of the Eighth Army A.M.S. Organization. Their activities during December have been mainly in the Province of FOCHI, in RAVENNA. In these two provinces the Radio Civil has organized his forces and, in addition to carrying out emergency repair work on water supplies, roads, bridges, sewers and electricity supplies, it is also actively engaged on the preparation of further rehabilitation plans.

(b) Staff and Personnel.

The only change in personnel since the last report has been the addition of a Technical Sergeant, who is an inspector and interpreter. The entire staff is, however, now operating from the Regional Engineer's headquarters at RICCIONE.

(c) Highways and Bridges.

Routes 2, 15 and 57 are Military Highways of prime importance, and are being kept with by the Army Engineers.

The Provincial roads are, in general, in order to determine the priority of necessary repairs and maintenance work. Contractors have been awarded for the reconstruction of eight bridges on Route 74. These have been let as "cost-plus" basis. Plans are being prepared for several other bridge reconstruction contracts, for which competitive tenders will be invited.

(d) Other Public Works.

The sewerage system of RICCIONE is being repaired as rapidly as possible.

The "position" of the station at CHIVILA was put into operation early in December and is showing good results.

The station at FOGGIA, south of RAVENNA, is under repair and should be in operation soon. The machinery here was lost, though not entirely, but the mill in it was badly damaged. A loan of 400,000 lire has been used to the "rehabilitation" by A.M.S. Plans have been made for re-aligning the north dykes along the RONCO, and for re-aligning the south dykes, all in RAVENNA Province, and for re-aligning the south dykes, all in RAVENNA Province.

Plans.

(b) Staff and Personnel.

The only change in personnel since the last report has been the addition of a Canadian Sergeant, who is an inspector and interpreter. The entire staff is, however, now operating from the Regional Engineer's Headquarters at ALICONE.

(c) Highways and Bridges.

Routes 9, 15 and 67 are Military Highways of prime importance, and are being built with by the Army Engineers.

The Provincial Road's are being studied in order to determine the priority of necessary repairs and maintenance work. Contractors have been awarded for the reconstruction of eight bridges on Route 73. These have been given a "cost-plus" basis. Plans are being prepared for several other bridge reconstruction contracts, for which competitive tenders will be invited.

(d) Other Public Works.

The sewerage system of ALICONE is being repaired as rapidly as possible.

The "modification" of the station at GERVIA was put into operation early in December and is showing good results.

The station at GERVIA, south of MONTREAL, is under repair and should be in operation soon. The machinery here was broken though not overhauled, but the building was badly damaged. A loan of 400,000 Lira has been made to the "Comitee" by A.M.B. Lira have been paid for repairing the earth dykes along the RONGC, MONTONE, URELL, BELARS and LALLO rivers, all in MONTREAL Province, at an estimated figure of cost of about 1,700,000 Lira. These are all urgently needed.

Repair of the school building at MONTREAL, a scheme involving the use of critical materials, is under consideration, and an estimate of the cost has been prepared.

260

(e) Electricity.

Inspection of hydro-electric generating stations has revealed the following:-

The QUARIS plant at 3837m, which had an installed capacity of 5,400 KW has been totally destroyed, excepting the hydroelectric works. The BUNGAH plant at 2542m, of 640 KW capacity, is under repair and is in operation. The MATILIA plant at 2512m, of 330 KW, is totally destroyed.

(f) Other Public Utilities.

Through the co-operation of Army Engineers, water-supplies have been provided for BILINI, POMI, and OSAHA. The S.R.E. is repairing the 1/2 line from TORI HUB to supply HAVEN, which is at present dependent on movable water, from local sources, which has to be utilized before use. The water distribution system of BILINI is under repair.

(g) Transport.

Referring to these bridges under reconstruction on Route 74 near NERCA, the Regional Engineer remarks: "Lack of adequate trucks will slow down completion".

sources, which has to be repaired.
Distribution system of RMI is under repair.

(-) Transport

Referring to three tillers under reconstruction on
Route 71 near MURKIN, the National Engineer reported:
" Lack of adequate trucks will slow down completion".

= 50 =

23. TIKONTOE AND DIOGUA REGION - (As Canal Engineer:
Lt. Col. C. R. Pierce) (Lt. Col. C. R. Pierce)

LAGUARDIA REGION - (Regional Engineer: Col. C. I. Pollock, F. A. S.)

VENEZIA REGION - (Regional Engineer: Major W. Knott, M. C. S.)

There is no noteworthy change to report regarding the Engineering Divisions of these three regions and the present employment of their assistant officers. The situation remains substantially as stated in our report of 28. 25 and 30 of the November report.

W. J. J. J.
W. J. J. J., C. S. S.,
Director.

W. J. J. J.
W. J. J. J., M. C. S.,
Lt. Colonel, M. C. S.,
Deputy Director.

259

W. J. ...
Lt. Colonel, S.E.,
Director.

W. J. ...
Lt. Colonel, R.E.,
Deputy Director.

HEADQUARTERS ALLIED COMMISSION

APO 354

Public Works and Utilities Sub-Commission

SUMMARY OF ACTIVITIES DURING NOVEMBER, 1944.

CONTENTS

SUBJECT	PARA	PAGE
Condensation of Report	1	1
Absence of Senior Officers	2	1
Extension of Powers to Italian Government (Public Works)	3	1
Reconstruction of Italy - Basic Organization	4	2
Salaries of Staff of Genio Civile	5	3
Defascism	6	3
Funds for Housing	7	3
Funds for Electric Rehabilitation	8	4
Road Report Bureau	9	4
Control of Building Materials	10	4
Number of Persons engaged on Public Works	11	4
Sardinia, Sicily and Calabria	12	5
Appointment of a Commissioner for Electricity in Rome	13	5
Public Utility Rates for Water, Electricity and Gas	14	5
Water Supplies and Sewerage	15	6
Benificence, etc.	16	6
Highways, Bridges and Public Works	17	7
Electrical Division	18	12
Personnel	19	13
Nominal Roll of Officers	20	16

REGIONAL REPORTS

Sicily Region
 Southern Region
 Lazio-Umbria Region
 Abruzzi-Marche Region
 Sardinia Region
 Toscana Region
 Emilia Region
 Piemonte and Liguria Region

19
 21
 25
 22
 38
 39
 44
 46

Condensation of Report	1	1
Absence of Senior Officers	2	1
Extension of Powers to Italian Government (Public Works)	3	1
Reconstruction of Italy - Basic Organization	4	3
Salaries of Staff of Genio Civile	5	3
Defalcation	6	3
Funds for Housing	7	4
Funds for Electric Rehabilitation	8	4
Road Report Bureau	9	4
Control of Building Materials	10	4
Number of Persons engaged on Public Works	11	5
Sardegna, Sicilia and Calabria	12	5
Appointment of a Commissioner for Electricity in Rome	13	5
Public Utility Rates for Water, Electricity and Gas	14	5
Water Supplies and Sewerage	15	6
Buildings, etc.	16	6
Highways, Bridges and Public Works	17	7
Electrical Division	18	12
Personnel	19	13
Nominal Roll of Officers	20	16

REGIONAL REPORTS

Sicilia Region	19
Southern Region	21
Lazio-Labdia Region	25
Abruzzi-Marche Region	32
Sardegna Region	38
Toscana Region	39
Emilia Region	44
Piemonte and Liguria Region	46
Lombardia Region	46
Venezia Region	46

HEADQUARTERS ALLIED COMMISSION

APO 394

Public Works and Utilities Sub-Commission

16 December 1944

SUMMARY OF ACTIVITIES DURING NOVEMBER 1944.1. Condensation of Report.

As in the case of this Sub-Commission's report for October, every endeavour has been made to submit the present Summary of Activities in the shortest practicable form and, therefore, the hope is again expressed that its deliberate condensation, both in subject matter and in text, will be borne in mind.

2. Absence of Senior Officers.

Lt.Col. Jenny (Director) returned from his official visit to Washington and resumed his duties at Headquarters on 1st November. He submitted to the Vice President of the Economic Section a report on the success of his Mission, stating that his request for readily available electric generating equipment had been approved, partly as a military requirement (40,000 KW) and partly as a civil requirement (20,000 KW), and that his requisition for highway construction equipment, which was prepared last Spring, had been approved as a military need. Certain items of the latter were to be made available from Army stocks.

Lt.Col. Lapper (Chief, Electrical Division), who accompanied Col. Jenny to Washington, returned to Headquarters on 14 November, after continuing his mission both in London and at S.H.A.E.F.

Lt.Col. Rhodes (Deputy Director), in response to an urgent War-Office telegram, departed for London by air on 20 November, expecting to be absent for about three weeks.

3. Extension of Powers to Italian Government (Public Works).

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Lt. Col. Rhodes (Deputy Director), in response to an urgent War-Office telegram, departed for London by air on 20 November, expecting to be absent for about three weeks.

3. Extension of Powers to Italian Government (Public Works).

Perhaps the most important single item among this Sub-Commission's activities during November was a great increase of the powers and responsibilities accorded to the Italian Ministry of Public Works.

In Appendix "A" of the October Report (relating to paragraph 14 of that Report) the appropriate powers of the several Authorities concerned with approval of projects were tabulated. Without prior reference to this Sub-Commission or its regional representatives, the Italian Authorities were at that time empowered to approve, in Italian Government territory, projects not exceeding 500,000 lire in estimated cost, provided that no

critical materials were involved. Now, however, by a letter addressed to all Regional Commissioners on 16 November and a letter of 18 November to the Minister of Public Works, authority is granted the Italian officials to approve, in Italian Government Territory, public works projects of any type and value that do not involve the use of critical materials to be imported by the Allies. (Projects of military necessity, however, will of course continue to be handled and approved directly by this Sub-Commission.) The control of critical materials from local sources having also been delegated to the Italian Government shortly afterwards, it will be seen that the Civil Authorities now possess very wide powers for the execution of all classes of public works.

In A.M.C. Regional Territory the limitations defined in the aforesaid Appendix of the October Report remain in force.

Under its increased powers, the Ministry of Public Works will now see to the preparation of, and will approve, the plans and calculations of schemes; it will arrange for financing them, will provide supervision and will in every way see the works through to completion. At the Italian Ministry of Finance there are Officers of the Finance Sub-Commission, A.C., who will check expenditure and will review all relative financial questions. All this was explained to the Minister of Public Works by the Director of the Sub-Commission in a personal interview, and it was emphasised to the Minister that, in the exercise of his now wide powers, he must be prepared to take a firm stand against political and private interests and should not hesitate to reject schemes of an unessential nature. It was pointed out, for example, that it would be considered extremely unfortunate if at any time it should be found that labour, materials and money were being spent on colleges, churches or numerous other unessential works whilst there remained hundreds of bridges to be rebuilt and hundreds of thousands of people without proper homes. The Minister said that he was in full agreement with these views. The Director promised him the assistance and support of this Sub-Commission in cases of special difficulty or urgency, and particularly if political or private interests should press for approval of unessential projects.

4. Reconstruction of Italy. - Basic Organisation.

" In view of the vast amount of work to be done in Italy in the near future, as well as in connection with the post war problem, it is essential that, first and foremost, a proper organisation be set up to cope with this serious problem. Those were the opening words of a recommendation which the Director of this Sub-Commission addressed to the Vice President, Economic

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" In view of the vast amount of work to be done in Italy in the near future, as well as in connection with the post war problem, it is essential that, first and foremost, a proper organisation be set up to cope with this serious problem ". Those were the opening words of a recommendation which the Director of this Sub-Commission addressed to the Vice President, Economic Section, on 17 November, regarding both the Italian and the Allied organisations for handling the overall task of reconstruction. The substance of the recommendation was secret and may not, therefore, be repeated here but the following paragraph, which closed the Section's advice to Italy, - organisation, may nevertheless be quoted:-

" Since it is a part of our function to assist in the proper functioning of the Italian Government, and since the reconstruction problem here is Italy's Number One problem, it behoves us to do everything we can to guide it along proper and effective channels. It is recommended that this matter be discussed with Prime Minister Bonomi."

5. Salaries of Staff of Genio Civile.

The low pay of officials of the Genio Civile was briefly referred to in paragraph 25 (i) of the October report. In a letter dated 3 November, addressed to this Sub-Commission, the Minister of Public Works raised this same matter, pleading the need for increasing the remuneration of the said officials, but saying that a straightforward raising of salaries would be unacceptable because it would give the Genio Civile a pay scale more favourable than those of other Government Administrations. In consideration of this, the Minister proposed that the remuneration of Genio Civile officials should be augmented by paying them percentages on the value of the works planned and directed by them, the percentages being varied according to the officials' grades. This Sub-Commission took an unfavourable view of the suggestion and promptly referred it to the Labour Sub-Commission for a ruling. The Labour Sub-Commission took a similar view. It expressed the opinion that it would be inadvisable to approve the granting of percentage fees to Italian engineers in the Public Service and stated that any justifiable increases in remuneration ought to be provided by raising the basic salaries. The Minister of Public Works has been informed of the Labour Sub-Commission's recommendation and has been advised to prepare a well studied statement, showing the comparison between salaries paid to engineers in the Government employ and salaries paid to engineers in comparable positions in the employ of private engineers, industries and contractors. Such a statement should form a clear basis upon which to determine any increase in the regular salaries of the Technical Staff of the Ministry of Public Works and its dependent Bodies.

6. Defascism.

Defascistization of the Staff of the Genio Civile, and of certain agencies partially dependent upon it, was referred to in paragraph 6 of the October report. Despite the special efforts therein mentioned, the progress made by the Ministry of Public

need for increasing the remuneration of the said officials, but saying that a straightforward raising of salaries would be unacceptable because it would give the Genio Civile a pay scale more favourable than those of other Government Administrations. In consideration of this, the Minister proposed that the remuneration of Genio Civile officials should be augmented by paying them percentages on the values of the works planned and directed by them, the percentages being varied according to the officials' grades. This Sub-Commission took an unfavourable view of the suggestion and promptly referred it to the Labour Sub-Commission for a ruling. The Labour Sub-Commission took a similar view. It expressed the opinion that it would be inadvisable to approve the granting of percentage fees to Italian engineers in the Public service and stated that any justifiable increases in remuneration ought to be provided by raising the basic salaries. The Minister of Public Works has been informed of the Labour Sub-Commission's recommendation and has been advised to prepare a well studied statement, showing the comparison between salaries paid to engineers in the Government employ and salaries paid to engineers in comparable positions in the employ of private engineers, industries and contractors. Such a statement should form a clear basis upon which to determine any increase in the regular salaries of the Technical Staff of the Ministry of Public Works and its dependent Bodies.

6. Defascism.

Defascistization of the Staff of the Genio Civile, and of certain agencies partially dependent upon it, was referred to in paragraph 6 of the October report. Despite the special efforts therein mentioned, the progress made by the Ministry of Public Works during the past month has not come up to expectations. It is evident that in this matter the utmost continual pressure upon the Ministry is necessary, and there is nothing more to say than that it will be diligently exerted.

7. Funds for Housing.

In paragraph 9 of the October report, mention was made of a proposed Decree which was to be further considered by the Council of Ministers on 7 November. It was duly approved by the Council on that date and has since been signed by all parties concerned, including the Lieutenant General of the Realm. At the time of writing, the Decree is being reissued at the Corte dei Conti and it is understood that its publication in the Gazzetta Ufficiale may be expected very soon. This important Decree will essentially provide for the granting of subsidies and loans for housing repairs.

At a meeting on 14 November, the Minister of Public Works said that the Italian Government was really determined to go ahead with this urgent work of widespread national necessity but that financing of projects had been the constant difficulty. He had, however, been granted a bulk financial allotment of five hundred million lire to be used at his discretion, and this would enable a number of projects to be put in hand.

8. Funds for Electric Rehabilitation.

In paragraph 9 of the October report, reference was made to an important conference with the Minister of Public Works on 26 October, at which the financing of electrical rehabilitation was discussed. Legislative measures for the allocation of two billion lire for reconstruction of hydro-electric plants have now been approved by the Cabinet of Ministers, and the Ministry of Public Works is being urged to hasten them to effective fruition in the form of a published Decree.

9. Road Reports Bureau.

The establishment of a small "Road Reports Bureau" by this Sub-Commission was announced in paragraph 7 of the September report and was further discussed in paragraph 10 of the October report. In order to assist the Bureau in maintaining and improving its service, all Officers returning to Headquarters from journeys in which they have experienced difficult road conditions are urged kindly to report all relevant information to the Bureau, in order that it may thus be made available not only for the benefit of other travellers but also as useful intelligence in connection with the work of the Highways and Public Works Division of this Sub-

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10. Control of Building Materials.

Being much concerned by the present excessive cost of many construction projects, and having particularly in mind the forthcoming expenditure on the housing program (see paragraph 7), this Sub-Commission has pointed out to the Vice-President of the Economic Section that the principal factor contributing to excessive costs is the high price of building materials, many of

which have to be purchased in the "Black Market", and has proposed strong measures - which it has clearly defined - for establishing proper control over the manufacture and distribution of such essential materials. In putting forward this recommendation, the Director of the Sub-Commission has said: "While the proposal may seem somewhat radical in its concept, it is believed that, under present conditions, it is a necessary procedure and we strongly believe that it will save the Italian people not only many millions of lire, but actually many billions of lire, something worth thinking about."

11. Number of Persons engaged on Public Works.

The Director General of the Italian Ministry of Public Works has been asked to furnish every month a statement of the number of persons employed on public works of all kinds conducted by the Genio Civile. This monthly statement is to embrace persons working for contractors and persons directly engaged by local Authorities. There is reason to believe that vast numbers of people in many parts of the country are employed in one way or another on public works because there is no other work for them to do, and it is very important that both the Ministry of Public Works and this Sub-Commission should be aware of the extent of such employment.

12. Sardinia, Sicily and Calabria.

This Sub-Commission has had no representative in Sardinia for the past three months, and it is expected that by 1st January 1945 a similar situation will obtain in Sicily and Calabria, the present intention being to withdraw from these Regions the one Public Works Officer as yet remaining in each.

13. Appointment of a Commissioner for Electricity in Rome.

The Minister of Public Works recently expressed the desire to appoint a "Commissario per l'Elettricità in Roma" and he named Sig. ROMITA as the official selected for the appointment. The Minister was told that, whilst no objection was raised to the appointment, it must be clearly understood that it will carry no power whatever in connection with the electrical rehabilitation program (in view of A.P.H.Q. Memorandum no. 43, mentioned in paragraphs 15 and 22 of the October report), nor any power as to the allocation and distribution of electricity in the Capital.

14. Public Utility Rates for Water, Electricity and Gas.

This subject was dealt with in paragraph 11 of the October report, wherein were mentioned the endeavours that were being made to secure a more rational and judicious use of such needed resources.

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14. Public Utility Rates for Water, Electricity and Gas.

This subject was dealt with in paragraph 11 of the October report, wherein were mentioned the endeavours that were being made to hasten the approval and publication of a much needed Decree. On 18th November, after further consultations at this Headquarters, a letter was addressed to the Minister of Public Works, recommending important modifications in the draft of the Decree and asking him to submit, as soon as possible, a revised draft for the final approval of the Allied Commission.

15. Water Supplies and Sewerage.

Rehabilitation of water supplies and sewerage systems continues, but without any outstanding feature worthy of addition to what was said in paragraphs 17 and 18 of the October report. It may be remarked, however, that the Rome Water supply has shown further improvement during the month, the quantity of water supplied to the city now being between 98 and 99 per cent of the normal supply.

16. Bonifacio, etc.

It was stated in paragraph 19 of the October report that work was well in hand for restoring gravitational drainage in the Pontine Marshes area (i.e. the "Bonifica di Littoria" and the "Bonifica Pontina"). Progress has been well maintained, but it is difficult to indicate what has been accomplished unless one enters into a detailed technical description of the projects. The following notes may, however, be of value to those who have some knowledge of the area:-

Bonifica di Littoria. (By far the larger area, and almost wholly drained by gravity). The Acque Alte main channel has been cleared, except at its mouth which is still silted, and it is now considered to be free from likelihood of overflowing. The main channel of the Acque Medie has been cleared sufficiently to preclude any danger of its flooding Route 7, but there is still further work to do. The River Sisto has been cleared sufficiently to pass its flood waters, whilst clearance of the River Astura is all but completed.

Bonifica Pontina. (This, the smaller area, is largely drained by pumping and, in consequence of the extensive damage done by the enemy to the mechanical plant, presents on the whole the greater problem). - The River Ufente is now almost entirely cleared of debris, as also is the River Aniene which can now carry its full flood waters. Excellent progress has been made in the removal of obstructions from the channel of Porto Badone, at the mouth of the Aniene River, and very little work remains to be done at this point.

Some of the smaller pumping stations have with difficulty been restored to operation, including particularly one near Ponte Magliore, which will contribute to the avoidance or alleviation of flooding on Route 7 in this locality. The likelihood of such flooding, however, is thought to have been practically obviated by the recent construction of temporary dams in the diversion channel and navigation canal at Ponte Magliore. These will prevent flood waters of the River Aniene from flowing in with attraction along Route 7. The dams are part of the

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Some of the smaller pumping stations have with difficulty been restored to operation, including particularly one near Ponte Maggiore, which will contribute to the avoidance or alleviation of flooding on Route 7 in this locality. The likelihood of such flooding, however, is thought to have been practically obviated by the recent construction of temporary dams in the diversion channel and navigation canal at Ponte Maggiore. These will prevent flood waters of the River Aniene from flowing in either direction along Route 7. The dams are part of the engineering operation of replacing the destroyed flood gates and will, of course, be removed when the new gates are in operation; but in the meantime they are themselves serving the essential purposes for which the flood gates are required.

The most important, and by far the largest, pumping station is that of Mazzocchio, and from the agricultural standpoint it is the one that could most contribute to improvement of the flooded area, but unfortunately it remains utterly useless for

lack of the large electric motors, transformers and other equipment which were removed by the Germans. In paragraph 9 of the October report, mention was made of endeavours to locate these and other electrical machines removed from the Pontine Marshes area, but as yet these endeavours have met with no success.

Other Bonifiche Projects, etc. Numerous other projects for repair and restoration of "bonifiche" works and flood defences are also in hand, particularly in Toscana Region. Although important, and generally very urgent, these schemes are relatively small in comparison with those in progress in the Pontine Marshes. Among them are included flood control and other works in the basins of the Rivers Arno, Elsa, Albegna, Ombrone and Rapido.

Po Valley Area. The potentialities and development of deliberate flooding in the Po Valley and the coastal plains of the northern Adriatic are being continually studied and observed, from the valuable confidential reports, plans, and aerial photographs that are regularly furnished by R.N., A.A.I. The grave difficulties which will undoubtedly have to be faced in this extensive low-lying zone are, however, being anticipated (with the support of the Agriculture, Public Health and Industry Sub-Commissions) by urgently requisitioning from Allied sources the supply of standardized transportable pumping units, totalling 10,000 HP. This, incidentally, is an extremely modest demand, for it represents no more than about ten per cent of the present installed pumping capacity of the area; and in order to appreciate this statement one should bear in mind the conditions that were met in the Pontine Marshes area, where about ninety per cent of the pumping plant had been rendered entirely unusable.

17. Highways, Bridges and Public Works.

(a) Routes 1 and 7.

Conferences were held during the month with Engineer Officers of Peninsular Base Section, in connection with Route 1 (Rome to Leghorn) and Route 7 (Rome to Naples). It was agreed that additional work on both these highways should be undertaken and that civil contracts should accordingly be let as quickly as possible. The work is already well under way and the contractors are making rapid progress both on bridge reconstruction and on surface repairs, with very satisfactory co-operation from Engineer Units of Peninsular Base Section.

Po Valley Area. The potentialities and development of deliberate flooding in the Po Valley and the coastal plains of the northern Adriatic are being continually studied and observed, from the valuable confidential reports, plans, and aerial photographs that are regularly furnished by H.Q., A.A.I. The grave difficulties which will undoubtedly have to be faced in this extensive low-lying zone are, however, being anticipated (with the support of the Agriculture, Public Health and Industry Sub-Commission) urgently requisitioning from Allied sources the supply of standardized transportable pumping units, totalling 10,000 HP. This, incidentally, is an extremely modest demand, for it represents no more than about ten per cent of the present installed pumping capacity of the area; and in order to appreciate this statement one should bear in mind the conditions that were met in the Pontino Marshes area, where about ninety per cent of the pumping plant had been rendered entirely unusable.

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(b) Route 6.

This route, which runs from Rome to Caserta, continues to be of the utmost importance and calls for the execution of much urgent work. Being accorded high priority as a through artery for military traffic, it cannot be allowed to suffer any obstruction, and for this reason the permanent reconstruction of numerous bridges is being pursued at a rapid pace in order that traffic shall not be impeded when certain Bailey bridges have to be removed early in the New Year. Some of the more critical works are being carried on night and day.

(c) Access Roads to Air Fields in Fogia Area.

This Sub-Commission has been requested to undertake responsibility for maintenance work on access roads to Air Fields in the Fogia area. These are actually Communal and Provincial roads, previously maintained by U.S. Army Air Force Engineers who, however, no longer have adequate facilities for the work. These additional responsibilities have been included in the Sub-Commission's highway program, and maintenance contracts are accordingly being let.

(d) Work necessitated by Floods.

As a result of recent floods in the North, an increasing number of demands has been received from Military Districts for works of road and bridge reconstruction. Responsibility for the execution of such works has been accepted in so far as the Sub-Commission's limited Officer personnel and inadequate transport facilities - both now taxed to the utmost - will allow. In order to contend with these emergency works, Officers are being withdrawn from more southerly Regions and stationed at the most critical locations in forward areas. The situation is further complicated by certain weaknesses in the organization of the Genio Civile, mainly due to inadequacy of staff and transport.

(e) Replacement of Bailey Bridges.

On all military routes the most urgent problem is the need for rapid reconstruction of permanent bridges so that the existing sectional military bridges (Bailey) may be removed for re-use in operational areas. The progress of this program, as revealed by the latest inspections, is very satisfactory. For example, a survey carried out in the area north of Rome has indicated that, of all the Bailey bridges still in position, 72 per cent will, at the end of January, have been replaced by permanent bridges the construction of which is now well under way. A further 14 per cent are being replaced by "viator" bridges, which are semi-permanent sectional bridges of mild steel, now being manufactured in Italy. The program of Bailey bridge replacement must, of course, continue to be treated as urgent, and for these sites where reconstruction is not yet in hand, contracts will be placed as expeditiously as possible.

(f) Bitumen.

During the month, a detailed estimate was prepared and a demand was submitted for supplies of bitumen, required for roads of solely Civil importance, throughout Italian Government territory. All bitumen is, and has been, under the control of the Allied Armies and, therefore, has been available only for roads of military importance. This situation has resulted in a complete lack of proper surface

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During the month, a detailed estimate was prepared and a demand was submitted for supplies of bitumen, required for roads of solely Civil importance, throughout Italian Government territory. All bitumen is, and has been, under the control of the Allied Armies and, therefore, has been available only for roads of military importance. This situation has resulted in a complete lack of proper surface maintenance on the 6,000 Km. of State, Provincial and Communal roads which, though having no military significance, are nevertheless of great civil value. It will not, however, be too late to rectify the situation if the 6,000 tons of bitumen demanded by this Sub-Commission can be made available over the period of the coming six months.

If bitumen be not made available in the very near future, extensive sections of the aforesaid important roads will become beyond repair and will need to be completely reconstructed at a prohibitive cost.

(z) Transport.

The transport situation, both for personnel and constructional materials, remains extremely grave. Whilst no additional trucks have been made available during the past month, general deterioration and the lack of spare parts have further depleted the number of vehicles available in an operable condition. All efforts to obtain tyres and tubes for cars and trucks belonging to the Genio Civile and to Contractors have been unsuccessful. It must be perfectly evident that, unless some solution to this problem can be found, a rapid decline in reconstruction activities will result. We are gradually increasing our demands on Italian facilities in forward areas and are returning greater responsibilities to the Civil Administration in Italian Government territory, but the result of this trend cannot be satisfactory unless the transport problem, in all its aspects, receives immediate attention and corrective action.

(h) Volume and value of Public Works.

The following tables have been compiled to show at a glance, under three main classifications, the present aggregate volume of public works throughout liberated Italy (excluding the island of Sardinia) :-

Tables on pages 10 and 11.

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(4) Volume and value of Public Works.

The following tables have been compiled to show at a glance, under three main classifications, the present aggregate volume of public works throughout liberated Italy (excluding the island of Sardinia) :-

Tables on pages 10 and 11.

Public Works Projects in November

TYPE	Initiated during Month	Cost (Lire)	Completed during Month	Cost (Lire)	In dur
Schemes of Military Priority					
Bridges	13	17,730,500	43	53,695,650	
Roads	40	49,761,060	42	42,056,650	
Total	53	67,491,560	85	96,656,300	
Schemes other than of Military Priority but for which the approval of AG/AMC					
Roads	44	32,098,820	43	38,950,681	
Bridges	79	75,263,602	47	53,662,821	
Public Buildings, Schools, etc.	126	103,775,077	79	45,797,052	
Debris Removal	76	48,469,300	72	28,939,633	
Waterworks, Sewers & Flood control	45	47,351,015	32	27,218,127	
Housing	51	25,124,000			
TOTAL	421	332,081,814	273	194,168,314	

252

607

- 70 -

Public Works Projects in November

ated Month	C o s t (Lire)	Completed during Month	C o s t (Lire)	In progress during Month	C o s t (Lire)
Schemes of Military Priority					
18	17,730,500	43	53,699,650	149	216,076,485
20	49,761,060	42	42,956,650	169	403,245,358
68	67,491,560	65	96,656,300	318	619,322,343
than of Military Priority but for which the approval of AG/AMG was required.					
44	32,098,820	43	35,950,681	179	250,690,886
79	75,263,602	47	53,662,521	121	116,791,370
28	103,775,077	79	45,797,052	280	377,823,904
76	48,469,380	72	28,539,633	218	174,013,741
45	47,351,015	32	27,218,127	95	119,724,562
51	25,124,000			29	139,640,000
421	332,081,814	273	194,168,314	922	1,478,644,463

Schemes handled independently by Italian Authorities

<u>T Y P E</u>	<u>Initiated during October</u>	<u>C o s t (Lire)</u>	<u>Completed during October</u>	<u>C o s t (Lire)</u>	<u>In d durin</u>
Roads	19	2,813,225	2	1,210,000	
Bridges	7	1,014,217	4	1,708,000	
Public Buildings, Schools, etc.	109	12,087,393	2	1,360,000	
Debris Removal	2	65,000	36	5,560,510	
Waterworks, Sewers, Flood Control	6	1,972,000	15	5,273,000	
Housing	4	3,264,000			
TOTAL	147 421 568	21,815,746	59	15,131,510	

NOTE : The above totals of schemes handled independently by the Italian Authorities are incomplete because full information was not available in all Regions. It is hoped that it will be possible to give a complete statement in the next report.

Schemes handled independently by Italian Authorities

Initiated during October	C o s t (Lire)	Completed during October	C o s t (Lire)	In progress during October	C o s t (Lire)
19	2,813,225	2	1,210,000	50	7,449,000
7	1,014,217	4	1,708,000	13	4,034,000
109	12,687,304	2	1,360,000	55	11,678,100
2	65,000	36	5,580,510	18	4,573,000
6	1,972,000	15	5,273,000	167	38,076,100
4	3,264,000	-	-	27	9,282,000
147	21,815,746	59	15,131,510	330	75,092,200

421
 568
 The above totals of schemes handled independently by the Italian Authorities are incomplete because full information was not available in all Regions. It is hoped that it will be possible to give a complete statement in the next report.

18. Electrical Division.(a) Generation.

During the month, 19,920 KW of power generating equipment was restored to service to meet the increasing military and essential civilian needs of electric power in Central Italy. This brings the restored generating capacity in Central Italy to a total of about 100,000 KW.

Good progress is being made in the restoration of the remaining repairable plant, and a sharp increase in available capacity may be expected in the next three months. Additional transport facilities (2 to 3 - 100 vehicles) would speed up the work of rehabilitation.

The moving of transformers for the Terni Company (a program which was started in October) was finished during November. Included in the movements was the transfer of four 20,000 KVA transformers and two regulating transformers from Rome to Terni for use at the Galileo generating station, now being rehabilitated. Supervisory and other personnel for this work were provided by the Allied Commission. Other equipment moved during the month under the Allied Commission's supervision included exciters from a plant at Terni to one in Toscana Region.

(b) Transmission.

In Central Italy, 162.83 Km. of high voltage transmission lines were repaired and put back into operation during November.

In the Abruzzi-Marche Region, rehabilitation under the Regional Electrical Officer's direction continued both on small generating stations and on transmission lines. Capt. H.G. Best has been attached to that Region as an additional electrical officer. Capt. Albert Duran, of the Sub-Commission, in his capacity of Liaison Officer with the Region, is also assisting in rehabilitation work wherever possible.

Electrical rehabilitation in Toscana Region has included the repair of an important transmission line between San Romano and Florence. The Electrical Officer of the Region has supervised the work and has arranged for transportation and other necessary assistance.

The electrical officers originally assigned to the three northern Regions are at present engaged on electrical rehabilitation work in more southerly areas.

Outstanding among the duties performed by the Southern Region Electrical Officer was the obtaining of transportation and other assistance for the repair of a serious break which occurred on 28 November in the transmission line facing Apulia. The "outage" was probably the most serious one to have affected the area since the Allied occupation. The normal electric power demand

program which was started in October) was finished during November. Included in the movements was the transfer of four 20,000 KVA transformers and two regulating transformers from Rome to Terni for use at the Galletto generating station, now being rehabilitated. Supervisory and other personnel for this work were provided by the Allied Commission. Other equipment moved during the month under the Allied Commission's supervision included exciters from a plant at Terni to one in Toscana Region.

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Outstanding among the duties performed by the Southern Region Electrical Officer was the obtaining of transportation and other assistance for the repair of a serious break which occurred on 28 November in the transmission line feeding Anagni. The "outage" was probably the most serious one to have effected the area since the Allied occupation. The normal electric power demand there, after rationing, has been approximately 30,000 kilowatts, and this was reduced by the "outage" to 17,000 KW. The repair was completed by 7 December, whereupon normal supply was resumed.

Such breakdowns in the high voltage transmission systems are generally due to lack of transport which normally would be used in carrying out routine maintenance. It is recorded, however, that while transport is in short supply the occasional breakdown should be accepted, and the available transport be fully utilized for the more urgent work of restoring the electrical plants.

(c) Electrical Reconstruction Committee.

The first meeting of this Committee was held in the office of the Chief of the Electrical Division of this Sub-Commission on 22 November, under the chairmanship of Maj. Gen. D. McCosch, C.E., of AFHQ. Representatives of AFHQ, Flag Officer Western Italy, A.A.I., A.C., and P.B.S., were present.

Plans for the rehabilitation of power plants and transmission lines in Central Italy were discussed and approved. Much of this work is already under way, or in development stage. Plans for supplying power to the forward areas, and to territory not yet liberated, were also discussed and approved. This work is being carried out by AAI, PBS and Eighth Army engineer units.

Lt. Col. W.M. Lappert, Chief of the Electrical Division of this Sub-Commission, reported upon his mission to the U.S.A. and the U.A., and also to France, in connection with obtaining portable electric generating equipment for Italy. He also reported on certain emergency electrical equipment of the Central Electrical Board (England) which is to be made available to the War Department. In view of this information, AAI are requisitioning some of the said equipment for use in Northern Italy.

In connection with electrical rehabilitation in Central Italy, mention should be made of a special meeting, convened by this Sub-Commission on 10 November, at which were present engineers of the principal Electric Power Companies of Central Italy and representatives of the Italian Ministry of Public Works. The meeting was presided over by Major E.J. Barry of the Electrical Division. After a general discussion, the companies were requested each to submit a plan for rehabilitation of all of its generating plant that could be brought into operation by the close of 1945. This has extended by about 9 months the original 6 months plan which commenced in September 1944. These new plans are now being received from the companies.

(d) Allocations.

At the monthly meeting of the Electric Power Committee of the Allied Forces Local Resources (Italian) Board on 22 Nov. 44, applications for electric power for occupied Italy were considered and allocations were made. Representatives of all the Military Districts were present and they submitted bids for available power for both military and essential civilian needs.

Capt. L.W. Laughlin of the Electrical Division of this Sub-Commission continues to act as coordinator between the Army Districts. He presented to the Committee a statement of recommended allocations of electric energy throughout occupied Italy.

A serious shortage of electric power for olive pressing

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Capt. I.W. Laughlin of the Electrical Division of this Sub-Commission continues to act as coordinator between the Army Districts. He presented to the Committee a statement of recommended allocations of electric energy throughout occupied Italy.

A serious shortage of electric power for olive pressing in Perugia Province existed during the month. Electrical Officers of the Lazio-Umbria Region have instituted strict rationing in the Terni area in order that additional energy may be supplied in Perugia.

(e) Supplies.

One of the many difficulties encountered in electrical rehabilitation has been that of obtaining materials. Major L.G. Price of the Electrical Division of this Sub-Commission is now responsible for dealing with these difficulties and has already effected considerable improvement in the situation.

Materials required for electrical reconstruction continue to be found on the open market, or through Engineer channels, but the position is becoming increasingly difficult owing to the fact that the open market is being drained of essential materials, particularly insulating materials, which can no longer be found in sufficient quantities for major repairs. However, insulating materials are now beginning to arrive in this theatre and it is hoped that steady importation will be maintained. Many transformers are out of commission for want of porcelain bushings, but there is a possibility of putting a porcelain factory into production at an early date.

(f) Transport.

The transportation problem of the Electric Power companies, both for operating and for construction work, continues to assume more serious proportions. In Southern Italy the need of tyres for such vehicles as the Companies possess is being borne out by electrical breakdowns resulting from inadequacy of maintenance, which, as has been stated before, cannot be carried out without transport. Line failure repairs are unduly delayed owing to the difficulty of getting from place to place with a limited amount of transport. Consequently, interruptions in the electric supply of southern and central Italy must be expected so long as the present shortage of transport remains.

(g) General.

With the object of improving liaison with the Italian Government, this Sub-Commission has requested the Ministry of Public Works to appoint a representative who will be located in the Sub-Commission's office in order to keep in close touch with the Sub-Commission's work. This arrangement will provide a means of readily exchanging information without the necessity of calling the Ministry's representatives to this Headquarters, and it is hoped that it will result in closer collaboration in all matters affecting the supply of electricity.

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19. Personnel.

The following transfers and attachments have been effected :-

NAME OF OFFICER	FROM	TO
Maj. E.H. Richardson (A)	Lombardia Region	(ASSIGNED) Toscana Region
Capt. A.G.A. Saul (B)	Southern Region	(ASSIGNED) Toscana Region
Maj. G.C. Eberle (A)	Piemonte Region	(ATTACHED) Toscana Region
Maj. M.O. Wooster (A)	Venezia Region	(ATTACHED) Toscana Region
Maj. A. Crowther (B)	Lombardia Region	(ATTACHED) Toscana Region
Maj. W. Knight, M.C. (B)	Venezia Region	(ATTACHED) Toscana Region
Maj. R.A. Bell (A)	H.Q.	(ATTACHED) Lazio-Umbria Reg.
Maj. G.P. Buckley (B)	Piemonte Region	(ATTACHED) Lazio-Umbria Reg.
Capt. H.J. Rosson (A)	Toscana Region	(ATTACHED) H.Q.
Capt. W.E. Truemerhausen (A)	H.Q.	(ATTACHED) Lazio-Umbria Reg.
Capt. H.G. Best (B)	H.Q.	(ATTACHED) Abruzzi-Marche Reg.
Maj. J.C. Rively (A)	Abruzzi-Marche Reg.	Off the strength of this Sub-Commission.
Mr. F.O. Griffith (Civilian) (A)	H.Q.	(ASSIGNED) Abruzzi-Marche Reg.

Capt. A.C.A. Saul	(B)	Southern Region	(ASSIGNED) Toscana Region
Maj. C.O. Burtle	(A)	Piemonte Region	(ATTACHED) Toscana Region
Maj. M.O. Wooster	(A)	Venezia Region	(ATTACHED) Toscana Region
Maj. A. Crowther	(B)	Emilia Region	(ATTACHED) Toscana Region
Maj. W. Knight, M.C.	(B)	Venezia Region	(ATTACHED) Toscana Region
Maj. R.A. Bell	(A)	H.Q.	(ATTACHED) Lazio-Umbria Reg.
Maj. G.P. Buckley	(B)	Piemonte Region	(ATTACHED) Lazio-Umbria Reg.
Capt. H.J. Rossor	(A)	Toscana Region	(ATTACHED) H.Q.
Capt. W.E. Trummershausen	(A)	H.Q.	(ATTACHED) Lazio-Umbria Reg.
Capt. H.C. Beest	(B)	H.Q.	(ATTACHED) Abruzzi-Marche Reg.
Maj. J.O. Rivaly	(A)	Abruzzi-Marche Reg.	Off the strength of this Sub-Commission.
Mr. F.O. Griffith (Civilian)	(A)	H.Q.	(ASSIGNED) Abruzzi-Marche Reg.

The next paragraph comprises a list of the Officers and Allied civilian technicians of this Sub-Commission, employed both at Headquarters and in the Regions. At Headquarters there are 19, and in the Regions 32, making a total of 71. As stated in paragraph 22 of the October report, six of the British Officers have been nominated for service in another theatre of operations and it is therefore to be expected that in due course their services will be lost to the Sub-Commission, thereby making its work still more onerous for the remainder of the staff.

The following list includes one Colonel and eight Lieutenant-Colonels, five of whom are American and four British. Opportunity is taken to observe again upon the long-standing anomaly (see paragraph 18 of September report and paragraph 22 of October report) that the Director (A.) and the Deputy Director (Mr.) continue to hold only the rank of Lieut-Colonel, although one full Colonel and six Lieut-Colonels are under their direction.

20. Mainland Roll of Officers.

(A) At Headquarters.

Lt.Col. Louis A. Jenny	0245627	C.E.	(A)	Director, Sub-Commissioner
Lt.Col. George E. Rhodes	46671	R.E.	(B)	Deputy Director
Capt. A.E. Freedy	161074	R.A.	(B)	Admin. Officer
Sub. A.K. King	287036	A.T.S.	(B)	Asst. Admin. Officer

Public Works Division

Lt.Col. V.S. Thompson	None	R.C.E.	(B)	Chief, Pub. Wks. Div.
Capt. Rufus W. Shepherd	0269899	S.R.	(A)	Asst. to Chief P.W. Div.
Major Norbert W. Hyland	0527077	S.R.	(A)	P.W.C. South
Mr. D. Solomon			(A)	Housing

Electrical Division

Lt.Col. W.M. Lepper	294812	G.L.	(B)	Chief, Elect. Div.
Capt. Louis W. Laughlin	0521392	S.R.	(A)	Asst. to Chief Elec. Div.
Major Edmund J. Berry	0925044	C.E.	(A)	Elect. Generation Dept.
Major Vinel S. Benton	0299699	Inf.	(A)	Operations & Transm. Dept.
Major Robert A. Bell	0326685	Sis.C.	(A)	Elect. Util. Officer (At'ch'd. Lazio-Umbria Region)
Major H.W. Westwood	139095	R.E.	(B)	Water, Gas, Drainage, Sanitation
Major I.G. Price	142572	A.E.	(B)	Supply Officer (At'ch'd.)
Capt. William E. Transershausen	0342407	P.A.	(A)	Elect. Util. Officer (At'ch'd. Lazio-Umbria Region)
Capt. Paul M. Vannoy	0280920	C.E.	(A)	Elect. Util. Officer
Capt. E.G. Best	85872	R.A.	(B)	Elect. Util. Officer (At'ch'd. Abruzzi-Marche Region)
	0228522	Sis.C.	(A)	Elect. Util. Officer

Lt. Col. Lewis A. Janny	0245827	C.E.	(A)	Director, Sub-Commission
Lt. Col. George E. Rhodes	45671	R.E.	(E)	Deputy Director
Capt. A.E. Proud	161074	R.A.	(B)	Admin. Officer
Sub. A.A. King	287036	A.T.S.	(B)	Asst. Admin. Officer
<u>Public Works Division</u>				
Lt. Col. V.S. Thompson	None	R.C.E.	(B)	Chief, Pub. Wks. Div.
Capt. Rufus W. Shepherd	0269899	S.R.	(A)	Asst. Chief E.W. Div.
Major Herbert W. Hyland	0525877	S.R.	(A)	P.W.O. South
Mr. E. Solomon			(A)	Housing
<u>Electrical Division</u>				
Lt. Col. W.M. Lepper	294842	C.E.	(B)	Chief, Elect. Div.
Capt. Louis W. Laughlin	0521352	S.R.	(A)	Asst. to Chief Elec. Div.
Major Edmund J. Barry	0925044	C.S.	(A)	Elect. Generation Dept.
Major Vinel S. Renton	0299699	Inf.	(A)	Operations & Transm. Dept.
Major Robert A. Bell	0328685	Sig.C.	(A)	Elect. Util. Officer (Atch'd. Lazio-Umbria Region)
Major H.W. Westwood	139095	R.E.	(B)	Water, Gas, Drainage, Sanitation
Major L.G. Price	142572	R.E.	(B)	Supply Officer (Atch'd.)
Capt. William E. Trommershausen	0342407	P.A.	(A)	Elect. Util. Officer (Atch'd. Lazio-Umbria Region)
Capt. Paul M. Vannoy	0280920	C.E.	(A)	Elect. Util. Officer
Capt. E.B. Best	86872	R.A.	(B)	Elect. Util. Officer (Atch'd. Abruzzi-Marche Region)
Capt. Albert E. Duran	0228522	Sig.C.	(A)	Elect. Util. Officer
<u>(B) In Regions.</u>				
Major D.A. Boyd	163541	R.E.	(B)	Regional Engineer

Southern Region.

Col. Lester J. Hensley	0174226	C.E.	(A)	Regional Engineer.
Major William P. Chamberlain	03073135	P.A.	(A)	P.W.O. Liaison Officer
Capt. R.N.J. Hibberd	235667	R.E.	(B)	No.2 Dist. Liaison Officer
Capt. D.K. Brown	0382133	C.A.C.	(A)	No.3 Dist. Highways
Capt. Ralph A. Ryan	0520275	S.R.	(A)	Elect. Util. Officer
Lt. P.H.H. Stephens	183578	R.E.	(B)	Highways
1st Lt. F.A. Sbralla	01551106	Ord.	(A)	Elect. Util. Officer
Mr. H.H. Townsend	Civilian		(A)	Reg. Eng. Staff.
Mr. Conrad H. Rapp	Civilian		(A)	Reg. Eng. Staff.

Lazio-Umbria Region.

Lt. Col. G. de C.E. Findlay, V.C.	12396	R.E.	(B)	Regional Engineer
Major A.G. Evans	181780	R.E.	(B)	Public Works Officer
Major A.E. Michel	0519275	S.R.	(A)	Public Works Officer
Capt. Warren P. Laughton	0383013	Inf.	(A)	Public Works Officer
Capt. Nathaniel M. Whitten	0376761	C.A.C.	(A)	Public Works Officer
Capt. William R. Gentry	0224642	C.M.P.	(A)	Highways
Capt. T.F. Spriggs	0302838	P.A.	(A)	Highways
Capt. A.J. Green	None	E.L.S.G.	(B)	Highways
Lieut. D.F. Wade-Drown	212400	R.A.	(B)	Elect. Util. Officer
Lieut. J.W.L. Butcher	265880	S-Lance.	(B)	Elect. Util. Officer
2nd Lieut. Peter F. Natale	01691527	C.E.	(A)	Public Works Officer

Abruzzi-Marche Region.

Lt. Col. C.A. Lettiner	0211151	C.E.	(A)	Regional Engineer
Capt. J.H. Walsh	0522486	S.R.	(A)	Highways
Major J.E. Foden	291969	C.L.	(B)	Elect. Util. Officer
Mr. P.O. Griffith	Civilian		(A)	Regional Eng. Staff.

Sardinia Region.Now under Italian Control.Toscana Region.

Major F.S.L. Lee	181419	R.E.	(B)	Regional Engineer
Lieut. L.J. Hodges	117600	R.A.	(B)	Public Works Officer
Capt. T.R. Brownlee	0152813	C.M.P.	(A)	Highways
Capt. F.R.C. Stephens	183578	R.T.R.	(B)	Elect. Util. Officer
Capt. J.W. Perkins	178091	R.E.	(B)	Public Works Officer
Capt. Hartwell J. Rosson	0516746	S.R.	(A)	Elect. Util. Officer
				(Atchd. H.Q.)

Major G. Boucher

14406

(S) Liaison Officer

Lt. Col. G. du C. E. Finlay, V.C.
 Major A. G. Evans
 Major A. E. Michel
 Capt. Warren P. Loughton
 Capt. Nathaniel M. Whitten
 Capt. William R. Gentry
 Capt. T. F. Spriggs
 Capt. A. J. Green
 Lieut. E. R. Wade-Brown
 Lieut. J. W. L. Hutcher
 2nd Lieut. Peter F. Metale

Umbria-Marche Region.

Lt. Col. C. A. Lethier
 Capt. J. H. Welsh
 Major J. E. Foden
 Mr. F. O. Griffith

Sardinia Region.

New under Italian Control.

Toscana Region.

Major P. S. L. Lee
 Lieut. L. J. Hodges
 Capt. T. R. Brownlee
 Capt. I. R. C. Stephens
 Capt. J. W. Perkins
 Capt. Hartwell J. Rosson
 Major B. Boucher
 Capt. A. S. A. Saul
 Major E. H. Richardson

R.E. (B) Regional Engineer
 R.E. (B) Public Works Officer
 S.R. (A) Public Works Officer
 Inf. (A) Public Works Officer
 C.A.C. (A) Public Works Officer
 C.R.P. (A) Highways
 P.A. (A) Highways
 R.A. (B) Elect. Util. Officer
 S-Lanc. (E) Elect. Util. Officer
 C.E. (A) Public Works Officer
 C.E. (A) Regional Engineer
 S.R. (A) Highways
 C.L. (B) Elect. Util. Officer
 (A) Regional Eng. Staff.
 R.E. (B) Regional Engineer
 R.A. (B) Public Works Officer
 C.R.P. (A) Highways
 R.T.R. (B) Elect. Util. Officer
 R.E. (B) Public Works Officer
 S.R. (A) Elect. Util. Officer
 (Attd. H.Q.)
 R.A. (B) Liaison Officer
 No. 1 Dist.
 G.L. (B) Highways
 P.A. (A) Public Works Officer

Emilia Region.

Major W.E. Spann
 Major W.H. Gaultie
 Capt. Richard P. Wecker
 Capt. E.H. Rogers

0260170 S.R. (A) Regional Engineer
 263325 C.L. (D) Public Works Officer
 0338955 C.E. (A) At'ch'd. A.M.G. 5th Army
 0413238 C.E. (A) Elect. Util. Officer

Piemonte Region.

Lt. Col. G.R. Birchett
 Major G.F. Buckley

0902256 C.E. (A) Regional Engineer
 146479 S.E. (B) Public Works Officer
 (At'ch'd. Lazio-Umbria
 Reg.)

Capt. J.A. Robb, Jr
 Capt. E.E. Smith

0901611 Sig.C. (A) Public Works Officer
 0520148 S.R. (A) P.W.O. (At'ch'd.
 Toscana Region.)

Major G.F. Shorle

0339841 C.E. (A) Highways officer,
 (At'ch'd. Toscana Reg.)
 G.D. (B) Elect. Util. Officer

Major J.S. Bennett

Lombardia Region.

Lt. Col. Clarence P. Bolick

0174447 E.A. (A) Regional Engineer
 (At'ch'd. Lazio-Umbria
 Region)
 161869 R.E. (B) (Attached Toscana Reg.)
 0196584 C.E. (A) (At'ch'd. Lazio-Umbria
 Region)

Major A. Crowther
 Major Harry Larson

Venezia Region.

Major F. Knight, M.C.

141150 Essex Regt. (B) Regional Engineer
 (At'ch'd. Toscana Reg.)

Capt. Edmund B. Feldman

0251776 S.R. (A) Public Works Officer

Major A.G. Parley

None M.C.O.C. (B) Highways

Capt. J.S.C. Wilson-Heathcote

101636 I. Corps (B) Highways

Major Mallery O. Weoster

0236441 Sig.C (A) Elect. Util. Officer
 (At'ch'd. Toscana Reg.)

Major G.C. Eberle	0339841	C.E. (A)	Highways officer, (At'tch'd. Toscana Reg.)
Major J.S. Bennett		C.E. (R)	Elect. Util. Officer
<u>Lombardia Region.</u>			
Lt. Col. Clarence E. Pollock	0174447	P.A. (A)	Regional Engineer (At'tch'd. Lazio-Umbria Region)
Major A. Crowther	161869	B.E. (B)	(Attached Toscana Reg.)
Major Harry Larson	0196584	C.E. (A)	(At'tch'd. Lazio-Umbria Region)
<u>Venezia Region.</u>			
Major W. Knight, M.C.	141150	Essex Regt. (B)	Regional Engineer (At'tch'd. Toscana Reg.)
Capt. Edmund B. Pelman	0251776	S.R. (A)	Public Works Officer
Major A.S. Parley		Nano E.S.C.C. (B)	Highways
Capt. J.S.C. Wilson-Hoathcote	101636	I. Corps (W)	Highways
Major Mallory C. Wooster	0236441	Sig. C.A.	Elect. Util. Officer (At'tch'd. Toscana Reg.)

REGIONAL REPORTS.

21. SICILIA REGION - (Regional Engineer: Major D.A. Boyd, R.E.)

(a) General Remarks.

In the Giornale di Sicilia on 22 Nov, it was stated that the "Presidenza del Consiglio dei Ministri" had sent a telegram to the High Commissioner for Sicily which said that a first allotment of 400 million lire had been given for war damages, of which 100 million would be used for repairing private houses. A Committee, of which the provveditore alle Opere Pubbliche will be President, will arrange the allocation of the funds on a provincial basis. This is a step in the right direction in the assumption of responsibility by the Italian Authorities (see paragraphs 3 and 7).

(b) Staff & Personnel.

The personnel of this Division remains the same, the Regional Engineer being the only Public Works Officer left in the island (see also paragraph 12).

(c) Highways and Bridges.

The roads declared Military Hi always remain the same as in June. Works ordered are proceeding slowly, being delayed by lack of coal & petrol, as explained in paragraph 24 (j) of the October report. Until more coal and petrol are allotted, the condition of all roads in Sicily will continue to deteriorate.

(d) Electricity.

The Regional Engineer's detailed statistics regarding the electric power situation show, as before (paragraph 24 (k), October report), that the island continues to be in a fortunate position compared with the mainland of Italy, but rationing must, nevertheless, be continued. The maintenance of this Region's comparatively favourable position is, however, dependent upon the necessary fuel supplies, and in this connection the Regional Engineer has requested that for the month of December -- in view of the seasonal uncertainty of hydro-electric production -- a greater allotment of coal, even Sardinian coal, should be made to Catania.

As a result of a short circuit which gave rise to a fire on 1st November, the 5,000 KW Ganz alternator at Catania was damaged. The possibility of repairing it is being studied with the aid of expert assistance from the mainland.

(e) Other Public Utilities.

(i) Water. No difficulties have been experienced in

The personnel of this Division remains the same, the Regional Engineer being the only Public Works Officer left in the island (see also paragraph 12).

(c) Highways and Bridges.

The roads declared Military Highways remain the same as in June. Works ordered are proceeding slowly, being delayed by lack of coal & petrol, as explained in paragraph 21 (j) of the October report. Until more coal and petrol are allotted, the condition of all roads in Sicily will continue to deteriorate.

(d) Electricity.

The Regional Engineer's detailed statement regarding the electric power situation shows, as before (paragraph 24 (k), October report), that the island continues to be in a fortunate position compared with the mainland of Italy, but retaining must, nevertheless, be continued. The maintenance of this Region's comparatively favourable position is, however, dependent upon the necessary fuel supplies, and in this connection the Regional Engineer has requested that for the month of December - in view of the seasonal uncertainty of hydro-electric production - a greater allotment of coal, even Sardinian coal, should be made to Catania.

As a result of a short circuit which gave rise to a fire on 1st November, the 5,000 KW Ganz alternator at Catania was damaged. The possibility of repairing it is being studied with the aid of expert assistance from the mainland.

(e) Other Public Utilities.

(i) Water. No difficulties have been experienced in connection with water supplies.

(ii) Gas. Coal has not yet been made available for gas production.

(iii) Trams. continued to run in Palermo, Catania and Trapani.

(f) Materials.

The first consignment of condenser tubes for the thermal generating station at Catania has now been received and further supplies are awaited.

Grant is available for industries, and there is also a small proportion for private uses. The Italian Authorities are now responsible for controlling its distribution.

(a) Transport.

The Regional Engineer again complains seriously of lack of transport and describes the situation as critical.

(b) Summary of Projects.

The following table shows, under three main classifications, the public works projects initiated during the month-

PUBLIC WORKS PROJECTS IN SICILIA REGION.

Type	Initiated during month	Cost (Liro)
Schemes of Military Priority		
Bridges	2	2,500,000
Roads	5	5,400,000
Total	7	7,900,000
Schemes other than of Military Priority but for which the approval of AG/AMG was required		
Roads	7	11,650,000
Bridges	3	7,370,000
Public Buildings, Schools, etc.	21	29,457,871
Debris Removal	--	--
Waterworks and Sewerage	9	22,495,070
Housing	--	--
Total	40	71,002,871
Schemes handled independently by Italian Authorities		

PUBLIC WORKS PROJECTS IN SPAINIA REGION.

Declassified E.O. 12356 Section 3.3/NND No.

785019

Type	Initiated during month	Cost (Liras)
Schemes of Military Priority		
Bridges	2	2,300,000
Roads	5	5,400,000
Total	7	7,700,000
Schemes other than of Military Priority but for which the approval of AC/ASG was required		
Roads	7	11,600,000
Bridges	3	7,370,000
Public Buildings, Schools, etc.	21	24,457,831
Debris Removal	--	--
Waterworks and Sewerage	9	22,025,000
Housing	--	--
Total	40	71,002,831
Schemes handled independently by Italian Authorities		
Roads	9	1,150,640
Bridges	7	1,014,317
Debris Removal	3	65,000
Public Buildings, Schools, etc.	52	6,618,851
Housing	--	--
Waterworks, Sewers, and Flood Control	6	1,972,000
Total	86	10,820,811

247

= 20 =

22. SOUTHERN REGION (Regional Engineer: Col.L.J. Hensley, C.E.)(a) General Remarks.

Requests for materials needed by Italian organizations to carry out work of a non-military nature are now being directed to the "Consiglio di Beniificenza" for action. Arrangements have been made with Military Authorities and Italian organizations for implementing the instruction (see para. 3) for extending the powers and responsibilities of the Italian Ministry of Public Works and its dependent Bodies.

(b). Highways and Bridges.

Ordinary repairs have been carried out on a little more than 400 miles of highways of Military priority No.1 in the areas of Caserta and Salerno. Similar repairs have also been done on approximately 100 miles of Provincial highways of a Military nature in the neighbourhood of Caserta. Ordinary maintenance on non-military roads in various parts of the Region has been executed over a total length of about 60 miles.

Lack of cement and transportation is reported to be impeding the maintenance of Military Highways in the Catanzaro zone.

It is reported that the Municipality of Bari is handicapped by lack of funds for road repairs. A sum of 200,000 lire has, however, been made available to the Prefect of Bari, in order that road works of military importance may be put in hand without delay.

Two reconstructed bridges (Fusento and Gioiannella) have been opened to traffic. Eight other bridges are in course of being rebuilt.

(c) Other Public Works.

Repairs to hospitals, orphanages and prisons continue, but in general they are proceeding slowly on account of difficulty in obtaining materials. Debris removal also continues. Progress has been made in the initiation of housing projects.

(a) Electricity.(i) Generation.

The three 18,000 KW. units at the GRICHELLA hydro-electric generating station went out of service on 29 October as the result of a fault that developed in one of them (see paragraph 25 (c) of the October report). Two of the units were restored to operation within a week, but the third, which was severely damaged, will take about three months to repair.

Ordinary repairs have been carried out on a little more than 400 miles of highways of Military Priority No. 1 in the areas of Caserta and Salerno. Similar repairs have also been done on approximately 192 miles of Provincial highways of a military nature in the neighbourhood of Caserta. Ordinary maintenance on non-military roads in various parts of the Region has been executed over a total length of about 63 miles.

Lack of cement and transportation is reported to be impeding the maintenance of Military Highways in the Oltanzara zone.

It is reported that the Municipality of Bari is handicapped by lack of funds for road repairs. A sum of 200,000 lire has, however, been made available to the Prefect of Bari, in order that road works of military importance may be put in hand without delay.

Two reconstructed bridges (Buenito and Giannedda) have been opened to traffic. Eight other bridges are in course of being rebuilt.

(c) Other Public Works.

Repairs to hospitals, orphanages and prisons continue, but in general they are proceeding slowly on account of difficulty in obtaining materials. Debris removal also continues. Progress has been made in the initiation of housing projects.

(d) Electricity.

(1) Generators.

The three 10,000 KW. units at the ORICHELLA hydro-electric generating station went out of service on 29 October as the result of a fault that developed in one of them (see paragraph 25 (c) of the October report). Two of the units were restored to operation within a week, but the third, which was severely damaged, will take about three months to repair.

On 15 November trouble developed in one of the 30,000 KW. units of the TIMACRANDE hydro-electric station. It is under repair and is expected to be in service again early in December.

Largely in consequence of the above mentioned failures, it has been necessary, in order to deal with peak loads, to operate two units of the CARUANO steam plant (of the Società Meridionale di Elettricità) and a diesel unit at the VIGLIENNA plant, (of the Volturno Co.)

(ii) Reconstruction.

ALONE - The unit is still under test but is expected to be ready for operation early in December.

LETE - Reconstruction continued to be delayed by lack of materials and transport. (See paragraph 25 (c) (ii) of October report).

AVERTING - Reconstruction has been delayed by lack of materials and transport.

MURO LUGANO - Was expected to have been finished sometime in November (see paragraph 25 (c) (iii) of October report); it is not yet ready for operation but the repairs are about 90 per cent completed.

CATUANO - The third unit of this steam plant has been tested and is now ready to operate.

TIMPAGRANDE - There has been delay in obtaining transport to move the 12,000 KVA 150/10 KV. transformer from BARI to TIMPAGRANDE but it is expected that rail transportation will be made available early in December. The auxiliary equipment has already been installed.

(iii) Retaining.

The loads on the various substations have exceeded allotments on several occasions during the month. Plans have been devised for lessening peak loads by reducing tramway services and by operating factories during off-peak periods. The overall consumption of electricity in Southern Region during the month has been within the allocation.

(a) Other Public Utilities.

(i) Water.

The following works by the Naples Water Company are in progress:-

Reconstruction of the canal bridge at Ramorandi; strengthening of foundations for 800 mm. diam. syphons near Vallone di Miano; reconstruction of the bed of the River Pietrarche near the point where the principal aqueduct crosses it; preliminary work on the hydraulic booster pumping installation for the Chiaiano water system; sundry repairs to mains, and valves in the distribution system of Naples.

Elsewhere in the Region the water supply situation is generally satisfactory and presents no urgent problems. The Porto Cervo has instituted

CAPITAL - The third unit of this steel plant has been tested and is now ready to operate.

TRANSFORMER - There has been delay in obtaining transport to move the 12,000 KVA 150/10 KV. transformer from BARI to TIRUPURAMBLE but it is expected that rail transportation will be made available early in December. The auxiliary equipment has already been installed.

(iii) Rationing.

The loads on the various substations have exceeded allocations on several occasions during the month. Plans have been devised for lessening peak loads by reducing tramway services and by operating factories during off-peak periods. The overall consumption of electricity in Southern Region during the month has been within the allocation.

(e) Other Public Utilities.

(i) Water.

The following works by the Naples Water Company are in progress:-

Reconstruction of the canal bridge at Tennorambi; strengthening of foundations for 800 mm. dia. siphons near Vallone di Miano; reconditioning the bed of the River Pietrascupa near the point where the principal aqueduct crosses it; preliminary work on the hydraulic booster pumping installation for the Chiusano water system; sundry repairs to mains, and valves in the distribution system of Naples.

Elsewhere in the Region the water supply situation is generally satisfactory and presents no urgent problems.

In the Cetanesco zone the Genio Civile has instituted a new division for attention to water supplies and gas works.

(ii) Gas.

The average production of gas in Naples during the month was 85,000 cu.ft. per day. The repair of the gas generators and of the Woodall-Duckham distillation battery is being carried out simultaneously with the delivery of

the necessary cast iron pieces from the "Navalmeccanica". The 60,000 cu.m. gas holder, which is under repair, is expected to be in working order by the end of December.

Repair of the main pipe line in Via Galileo Ferraris is going on, and repairs have also been carried out to damaged mains in parts of the city which are as yet without a supply of gas, particularly the Corso Garibaldi zone, the Via Forie and the Vesuvian Campagna.

(f) Industries and Factories.

A cement mill at Vico Marina was inspected and it was found that with the use of about 200 tons of cement the factory could be put into an operable condition. Its production would then relieve the shortage of cement in that locality.

There is a factory in Bari called "Acciaierie e Forriere Pugliesi" which, in the past, manufactured water pipes. This factory not only has on hand stocks of immediate use to the Naples waterworks, but its production is urgently needed throughout the Region. At present, however, the factory is requisitioned by a British military unit and its present stock of materials is frozen.

(g) Materials.

On this subject the Regional Engineer says:-

"The outlook on materials is very grim due to the change in the system of control. We have already had concrete examples of the inefficiency of the Consiglio di Bonifica here in Naples in its capacity of material control. We cannot point out one single case where materials requested by civilian agencies to them have been forthcoming."

(h) Transport.

As has been indicated in previous reports, there is a serious shortage of transport.

(i) Summary of Expenditure.

The following table shows the present volume and value of public works projects in the Region, excluding schemes handled independently by the Italian authorities:-

Publicist which, in the past, had been used by the factory not only has on hand stocks of immediate use to the Naples waterworks, but its production is urgently needed throughout the Region. At present, however, the factory is requisitioned by a British military unit and its present stock of materials is frozen.

(g) Materials.

On this subject the Regional Engineer says:-

"The outlook on materials is very grim due to the change in the system of control. We have already had concrete examples of the inefficiency of the Consiglio di Economica here in Naples in its capacity of material control. We cannot point out one single case where materials requested by civilian agencies to them have been forthcoming."

(h) Transport.

As has been indicated in previous reports, there is a serious shortage of transport.

(i) Summary of Projects.

The following table shows the present volume and value of public works projects in the Region, excluding schemes handled independently by the Italian authorities:-

Public Works Projects in Southern Region.

Type	Initiated during Month	Cost (Lire)	Completed during Month	Cost (Lire)	In dur
Schemes of Military Priority					
Bridges	5	5,569,000	22	23,775,000	
Roads	31	39,242,162	39	38,746,650	
Total	36	44,811,162	61	62,521,650	
Schemes other than Military Priority but for which the approval of AC/AMG was required					
Roads	8	4,135,400	26	30,704,051	
Bridges	7	2,788,773	13	11,158,896	
Public Buildings, Schools, etc.	22	23,414,446	55	24,834,052	
Debris Removal	9	5,528,100	31	2,901,633	
Waterworks, Sewers and Drainage	10	8,174,015	9	16,390,200	
Housing	32	2,450,000	--	--	
Miscellaneous	16	10,783,560	8	1,625,000	
TOTAL	140	58,314,294	136	94,613,830	

Public Works Projects in Southern Region.

Initiated during Month	Cost (Lire)	Completed during Month	Cost (Lire)	In progress during Month	Cost (Lire)
Schemes of Military Priority					
5	5,569,000	22	23,775,000	33	73,982,000
31	39,242,162	39	38,746,650	119	276,251,758
36	44,811,162	61	62,521,690	152	350,233,758
then Military Priority but for which the approval of AC/AMC was required					
8	4,135,400	26	30,704,051	80	199,481,216
7	2,798,773	13	11,158,894	46	52,940,916
29	23,414,446	55	24,834,052	209	335,476,501
6	9,528,100	31	9,901,632	86	78,774,091
10	2,474,015	9	16,390,200	41	68,329,358
32	2,490,000	—	—	3	2,073,000
16	10,783,560	2	1,625,000	34	21,294,815
110	58,314,294	136	94,613,830	499	759,269,897

23. LAZIO-UMBRIA REGION - (Regional Engineer: Lt. Col. G. G. C. B. PINDLEY, V.C.)

(a) General Remarks.

The Regional Engineer has observed that a recent Decree, under which the wages of labour were increased by 35 lire per day retrospectively from 15th August, appeared likely to introduce difficulties in respect of necessity for contractors to make back-payments. These envisaged difficulties were suitably ventilated, and a commendably prompt decision was issued by the Italian Minister of Public Works which, in the opinion of the Regional Engineer, ought to obviate any possibility of disputes.

(b) Staff and Personnel.

The Regional Engineer reports that owing to the increased powers accorded to the Italian Authorities (see Para. 3), and transfer to the Italian Authorities of the control of restricted materials, he has been able to strengthen his organization for Umbria and territory by appointing Major Evans to that Region. Lt. Butcher was assigned to the Regional Engineer's staff on 1st November. Major Bell, Major Luckley and Capt. Trommerhausen were attached for temporary duty.

The Genio Civile has started to reinforce its personnel in Umbria, and shows promise of further extensions; but increasing of staff is impeded by the inadequacy of salaries offered to temporary officials. The Regional Engineer refers to this as a long outstanding problem and states that a solution of it is prerequisite to the acceleration of work and the provision of adequate supervision.

The "Ufficio Speciale del Genio Civile per la Viabilità" now has its fifth "Ispezione" in three months. These frequent changes have, of course, adversely affected the work of that Department, which in any case is grossly understaffed and has not nearly enough engineers and surveyors for the necessary planning and supervision.

(c) Highways and Bridges.

The classification of Route 2 has been altered (again) from class 9 to class 20.

Road maintenance under existing contracts has continued and three new contracts have been approved.

On Military Highways and State roads the number of bridges reconstructed to date is 32 and the number in course of reconstruction is 98. Nine new contracts were let in November. On other roads during the month, 36 bridge reconstruction projects were handled in the territory, of which 53 were finally approved and financed, and 61 such projects were handled.

The Regional Engineer reports that owing to the increased powers accorded to the Italian Authorities (see Para. 3), and transfer to the Italian authorities of the control of restricted materials, he has been able to strengthen his organization for Umbria AMG territory by appointing Major Evans to that Region. Lt. Butcher was assigned to the Regional Engineer's staff on 1st November. Major Bell, Major Buckley and Capt. Trommershausen were attached for temporary duty.

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The "Ufficio Speciale del Genio Civile per la Viabilità" now has its fifth "Ispettore" in three months. These frequent changes have, of course, adversely affected the work of that Department, which in any case is grossly understaffed and has not nearly enough engineers and surveyors for the necessary planning and supervision.

(c) Highways and Bridges.

The classification of Route 2 has been altered (again) from class 9 to class 10.

Road maintenance under existing contracts has continued and three new contracts have been approved.

On Military Highways and State roads the number of bridges reconstructed to date is 12 and the number in course of reconstruction is 98. Nine new contracts were let in November. On other roads, during the month, 56 bridge reconstruction projects were handled in AMG territory, of which 53 were finally approved and financed, and in Italian Government territory 63 such projects were handled, of which only 4 were finally approved. In addition to the latter, however, 85 reconstruction projects, each not exceeding 500,000 lire in estimated cost, were finally approved by the "Ispettore Generale" under his own power. ("This", says the Regional Engineer, "shows satisfactory work, and indicates that big package of projects generally occurs at higher levels.") The total number of bridge projects in this category to date is 329, ~~267~~ ²³⁴ which have been finally approved, including 32 already completed. Those figures do not include the numerous permanent and temporary bridge

reconstruction in Rieti, Viterbo and Perugia Provinces which were initiated by Army LAG.

Street repairs in Rome City, amounting to 37 million lire in estimated cost, are 50 % completed.

(d) Other Public Works.

(1) Housing.

New construction works in hand have made very satisfactory progress. Three new schemes have been approved during the month (viz. Cisterna - 250 persons; Mistrone - 148 persons; and Castellforte - 148 persons), bringing the total to 3,345 persons ordered for so far.

Repair of public buildings for the emergency accommodation of refugee families has made fair progress and some new projects have recently been commenced. Collectively these schemes should provide for about 10,000 persons.

In Italian Government territory, all further schemes of this kind will be uninsurable, approved and financed by the Italian authorities (see paras. 3 and 7).

(ii) Sanitation.

The progress of work in the Pontine Marshes area has already been reported in Para. 16.

(iii) Line Clearance.

Co. 561 Company has continued its work, but with very poor results, largely on account of lack of changes of clothing and coats, for which reason the troops have not operated in wet weather. During the month four men were killed and three wounded by the explosion of a single mine. The number of mines lifted by this Company since the last report appears to be nil.

The civil contractor engaged on this work is reported to have swept 323,870 sq.m. during the month, which represents the clearance of 61 km. of H.E. electric power transmission line. The number of mines lifted by the contractor since the last report is stated to be 2,786. The work carried out up to the present has shown an average of one mine per 70 sq.m.

The average cost per line lifted by civil contract has been 207 lire. The average cost per sq.m. of ground swept has been 2.95 lire. All the work has been done entirely by "prodding". There have been no casualties among the personnel of the civil contractor.

Repair of public buildings for the emergency accommodation of refugees facilities has made fair progress and some new projects have recently been commenced. Collectively these schemes should provide for about 10,000 persons.

In Italian Government territory, all further schemes of this kind will be considered, approved and financed by the Italian authorities (see paras. 3 and 7).

(ii) Bonifacio.

The progress of work in the Pontine Marshes area has already been reported in Para. 16.

(iii) Mine Clearance.

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The civil contractor engaged on this work is reported to have spent 323,870 sq. m. during the month, which represents the clearance of 64 Km. of H.T. electric power transmission line. The number of mines lifted by the contractor since the last report is stated to be 2,786. The work carried out up to the present has shown an average of one mine per 70 sq. m.

The average cost per mine lifted by civil contract has been 207 lire. The average cost per sq. m. of ground swept has been 2.26 lire. All the work has been done entirely by "padding". There have been no casualties among the workmen of the civil contractor.

(iv) Sewerage.

Sewer repairs in Rome continue but have been delayed by inclement weather.

(v) Fiunefino Harbour.

Three projects for temporary repairs to the moles have been completed. Three more fishing boats have been raised, and some improvement has been effected in the harbour mouth, where there is now nearly 7 ft. clearance

above the remaining wrecks in the navigable channel. Progress has been greatly hindered by the weather conditions.

The exceptionally high water level in the Tiber on 5 November caused flooding of the town of Fiumicino. Owing to the extensive demolition of the quay, which will take many months to repair, it is possible that flooding will again occur.

(c) Electricity.

(i) Generation.

The power available in the Region as a whole has risen from 10.2 % of pre-war total to 12.6 %, the actual increase being 14,000 KW of generating capacity. The Commune of Rome, however, receives 20% of its power total, whereas the remainder of the Region receives only 6 %.

The addition of a further 40,000 KW is expected during December on completion of further repair work.

Due to an excess peak load, believed to have occurred in Toscana Region, two power plants were rendered unserviceable in Perugia on about 25 November. The resulting shortage was affected EMUGIA, TERNI, RISTI and TOSCANA and has necessitated a rebalancing which has been the subject of conferences between Officers of the Sub-Commission Headquarters and the S & M. Officers of Army Chief Engineers.

(ii) Reconstruction.

During the month, 169 Km. of transmission and distribution lines have been repaired. 2,400 Km. of such lines are now serviceable in the Region, whilst 2,000 Km. have yet to be repaired.

(iii) Rationing.

The new rationing plan in Rome was put into effect on 1st November. The peak loads, however, have so far been greater than were expected; partly, it is thought, because the idea of spreading the ration has not yet been grasped by the population, and partly owing to the scarcity of low power lamp bulbs. At peak periods 65% of the consumers are connected, and at off-peak times a higher proportion.

The tramways have been exceeding their allocation by as much as 30% and have accordingly been warned by R.A.A.C.

(d) Other Public Utilities.

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Commission Headquarters and the E & M. Officers of Army

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2,000 Km. have yet to be repaired.

(iii) Nationality.

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because the idea of exceeding the ration has not yet been

grasped by the population, and partly owing to the scarcity

of low power lamp bulbs. At peak periods 65% of the

consumers are connected, and at off-peak times a higher

proportion.

The tramways have been exceeding their allocation by

as much as 30% and have accordingly been warned by R.A.A.C.

(f) Other Public Utilities.

(i) Water.

The ACQUA water supply systems in Rome continued to

furnish 100% of the peace time demand. The ACQUA MARCIA

supply now yields 98% of its pre-war quantity.

Several bursts in water mains have been 243 fixed

during the month.

(k) Transport.

The car situation has somewhat improved, but still seriously restricts the activities both of the Allied Officers and the Genie Civile officials.

Lack of tyres for cars and trucks continues to be very bad and is impeding work.

(f) Summary of Projects.

The following table shows, under three main headings, the present volume and value of public works projects in the Region:-

Tableaux pages 10 and 11.

1329

Declassified E.O. 12356 Section 3.3/NND No. 785019

Tabular pages 30 and 31.

242

= 29 =

Public Works Projects in Lazio-Umbria Region.

Type	Initiated during Month	Cost (Lire)	Completed during Month	Cost (Lire)	In ad
Schemes of Military Priority					
Bridges	5	7,361,000	5	16,938,000	
Roads	1	1,320,000	--	--	
Total	7	8,681,000	5	16,938,000	
Schemes other than of Military Priority but for which the Approval of AC/AM was					
Roads	18	2,858,000	9	4,433,000	
Bridges	26	28,608,000	25	19,356,000	
Public Buildings, Schools, etc.	13	18,033,000	21	19,293,000	
Debris Removal	32	31,238,000	22	15,626,000	
Waterworks & Sewerage	1	564,000	18	8,634,000	
Housing	19	22,634,000	--	--	
TOTAL	118	103,936,000	102	67,342,000	

Public Works Projects in Lazio-Umbria Region.

Initiated during Month	Cost (Lire)	Completed during Month	Cost (Lire)	In progress during Month	Cost (Lire)
Schemes of Military Priority					
3	7,561,000	8	16,938,000	63	97,802,565
1	1,320,000	--	--	32	90,285,000
7	8,891,000	8	16,938,000	95	186,067,565
of Military Priority but for which the Approval of AG/AMG was required.					
8	2,858,000	9	4,433,000	56	19,355,000
26	28,609,000	25	19,356,000	18	24,061,000
5	18,033,000	21	19,283,000	24	17,088,000
39	31,238,000	29	15,626,000	107	78,926,000
1	551,000	18	8,634,000	13	27,639,000
9	22,631,000	--	--	26	136,667,000
8	103,936,000	102	67,342,000	244	303,736,000

Schemes handled independently by Italian Authorities

Type	Initiated during October November	Cost (Lire)	Completed during October Nov	Cost (Lire)
Roads	---	---	2	1,210,000
Bridges	---	---	4	1,705,000
Debris Removal	---	---	7	995,000
Public Buildings, Schools, etc.	---	---	2	1,360,000
Housing	---	---	---	---
Waterworks and Sewerage	---	---	---	---
TOTAL	---	---	15	5,273,000

TOP

Schemes handled independently by Italian Authorities

10 Copies

Initiated during October November	Cost (Lire)	Completed during October Nov	Cost (Lire)	In progress during October Nov	Cost (Lire)
---	---	2	1,210,000	50	7,449,000
---	---	4	1,768,000	13	4,034,000
---	---	7	995,000	18	4,573,000
---	---	2	1,360,000	55	11,678,100
---	---	---	---	27	9,282,000
---	---	---	---	4	1,060,000
---	---	15	5,273,000	107	38,076,100

24. ABRUZZI-ANCONA REGION. (Regional Engineer: Lt. Col. C.A. LAMMER, C.S.)

(a) General Remarks.

The Provinces of Ancona and Pesaro-Urbino were transferred to Regional control in November. The entire region is, therefore, now under the Regional Administration; and it may be noted that it comprises two Comunità: Marche, which is wholly Regional A.N.O. territory; and AbruZZi, which is W.C. territory.

An attempt is being made to hand over more responsibility to the Italian Administration in AbruZZi, but it is necessary to exert continual pressure upon that Administration in order to maintain initiative. Since the handing over of the four southernmost Provinces to the Italian Government on 16 October there has been a marked decrease in the number of schemes prepared and submitted by the Genio Civile.

In accordance with the Directive mentioned in Para. 3 of this report, orders have been issued regarding the increased powers of the Italian authorities.

In Ancona Province there are projects in progress, amounting in value to approximately 24 billion lire, which were initiated by Eighth Army I.N.G., but of which only about 50% have been financed.

The "Capo" of the Genio Civile in Ancona, and the Engineer or the "Ufficio Speciale del Genio Civile per la Viabilità" for the Marche Comunità, require about thirty rooms for use as offices and also about ten living apartments. The Regional Engineer remarks that these two requirements must be centralized under their Chiefs if good results are to be obtained, and that the aforesaid accommodation recognized for this purpose, is to be regarded as the necessary minimum. The need has been discussed with the Provincial Commissioner and it is believed that some progress has been made towards its fulfillment.

(b) Staff and Personnel.

Mr. P.C. Griffith, an American civilian of the F.E.A., has been assigned to the staff of the Regional Engineer for duty as Administrative Officer.

Major J.E. Tolson now devotes his attention exclusively to clerical work, in which he has lately had the part-time assistance of Major J.E. Bennett (temporarily attached) and Capt. A.E. Duran (of Sub-Commission HQ.). The Regional Engineer declares that an additional Officer is necessary if adequate supervision is to be given to this field.

initiative. Since the turning over of the Port of Genoa to the Italian Government on 16 October there has been a marked decrease in the number of schemes prepared and submitted by the Genoa Civile.

In accordance with the Directive mentioned in Para. 3 of this report, orders have been issued regarding the increased powers of the Italian Authorities.

In Ancona Province there are projects in progress, amounting in value to approximately 21 million lire, which were initiated by Eighth Army I.M.S. but of which only about 50% have been financed.

The "Capo" of the Genoa Civile in Ancona, and the Engineer of the "Ufficio Speciale del Genio Civile per la Viabilità" for the Marche Comitatamento, require about thirty rooms for use as offices and also about ten living apartments. The Regional Engineer reports that these two departments must be centralized under their Chief's if good results are to be obtained, and that the aforesaid accommodation required for this purpose, is to be regarded as the necessary minimum. The need had been discussed with the Provincial Commissioner and it is believed that some progress has been made towards its fulfillment.

(b) Staff and Personnel.

Mr. F.C. Griffith, an American civilian of the F.E.A., has been assigned to the staff of the Regional Engineer for duty as Administrative Officer.

Major J.E. Tolan now devotes his attention exclusively to electrical work, in which he has lately had the part-time assistance of Major J.S. Bennett (temporarily attached) and Capt. A.E. Duran (of Sub-Commission HQ.). The Regional Engineer declares that an additional Officer is necessary if adequate supervision is to be given in this field.

Capt. J.E. Walsh has been appointed Public Works and Utilitarian Officer at Ancona and will supervise all projects in Marche except electricity generation and transmission.

Major J.C. Marella, of the Italian Army, is attached to this Region and is assisting Capt. Walsh.

Capt. E. Milani, of the Italian Army, who is now in uniform, carries out duties in the Headquarters office of the Regional Engineer in AQUILA.

Major J.C. Bively has been posted away and is no longer on the strength of this Sub-Commission.

A "Capo" of Carlo Civile, Ing. Annese, has been appointed to Pesaro-Urbino. A protest was recently addressed to Eighth Army I.M.A., against their removing to a forward area an important Surveyor of the Province of Pesaro-Urbino together with a small truck belonging to the Regional A.M.C. engineering office of that province. Important projects were in progress under the immediate supervision of that Surveyor and it is imperative that he be returned at once.

(c) Highways and Bridges.

All Military highways in forward area are open except the following:- Route 84 from Palena to Recanatese; all of Route 8; from Ascoli-Piceno to Chieti Scalo.

Progress of road works, on both military and non-military highways, is generally good, although projects are suffering some delay on account of lack of transport, petrol, cement, and timber.

(d) Other Public Works.

Rehabilitation of houses and public buildings in devastated areas, especially around last winter's lines, has been considerably stimulated. Various studies and reports have been prepared for other interested departments of A.C.

Schemes for the reconstruction of prisons and police stations have been submitted for approval, and certain projects have been proposed for repairing museums and art galleries.

(e) Electricity.

(i) Generation.

Visits by Capt. Duran and Lt. Butcher, of Sub-Commission Headquarters, in connection with electricity generation and distribution problems have, in the opinion of the Regional Engineer, been very helpful.

There has been a general improvement in supply, due to bringing further plant into service and also to the increased amount of water available for hydro-electric generation.

Two features of importance were the resumption of operation of the PIANICOLA (Piacenza) generating station, which is now developing up to 1,500 KW, and the increase in output of the PIANISO plant, which has risen from 1,500 KW to a peak of 3,700 KW. The benefit of the increased supply has been spread over the widest area possible. Unfortunately, transmission lines have frequently been

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(1i) Reconstruction.

Repairs and reconstruction operations have continued. Progress on the Ghiatt-Sorfo line has been slow but endeavours are being made to accelerate the work by "cannibalising" non-essential lines in the vicinity, and completion is heretofore expected very soon. The 60 KV line from Orappello to Franciano is being repaired

and should be in use by 15 December. This line will enable a further 1,500 MW. to be drawn from the South.

(iii) Rationing.

Provincial orders were issued, regulating the consumption by industrial users. It has recently been suggested that these orders are being ignored and, therefore, spot checks are now being made. Control is difficult because power and lighting circuits cannot be separated. Insets are squares but in a few places it has been possible to install time switches.

Generally the essential power requirements of industrial plants, such as flour mills, olive presses, saw mills, woodworking shops, and metalworking shops for agricultural tools, are being met. The watch factory at Jost and the sulphur mine at Cabernardi, in Ancona and Pesaro provinces are as yet without electric power, but negotiations are in hand with No. 20 C.R.E., as a result of which it is hoped that power will soon be made available to them.

(f) Other Public Utilities.

Waterworks rehabilitation projects were commenced during the month at Ravelli, Castelvecchio Subequo and Capestrano. The Pesaro water supply scheme, commenced in October, has been completed.

(g) Materials.

The Regional Engineer complains of the general shortage of cement and also of difficulty in obtaining adequate supplies of timber for use in bridge reconstruction.

(h) Transport.

Lack of transport is the most serious limiting factor in the reconstruction program of this, as of every other, Region.

Although requisitions for tyres and batteries have been submitted many times in the past six months they have as yet produced nothing.

Regarding the mobility of personnel, the Regional Engineer says: "Unless our Civic Civile can be furnished with tyres and batteries almost immediately, they will be off the road except for jobs within walking distance, and others will cease." Regarding movement of materials, he points out that the army has no transport

Generally the essential power requirements of industrial plants, such as flour mills, olive presses, saw mills, woodworking shops, and metalworking shops for agriculture tools, are being met. The match factory at Jasi and the sulphur mine at Gabbaradi, in Ancona and Pesaro provinces are as yet without electric power, but negotiations are in hand with ENEL S.p.A., as a result of which it is hoped that power will soon be made available to them.

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Regarding the mobility of personnel, the Regional Engineer says: "Unless our Genio Civile can be furnished with tyres and batteries almost immediately, they will be off the road except for jobs within walking distance, and others will cease." Regarding movement of materials, he points out that the Army has no transport to spare for Regional engineering needs, and he says: "Local material supplies in the advance area have been depleted. Unless transportation can be furnished from other sources, construction work will cease. I have eighteen bridges held up for material in Marche at the present time. In one case the Genio Civile asks to cancel a contract and pay consequential damages unless the material can be found."

239

Elsewhere in his report, the Regional Engineer also says: "The electrical situation as a whole is retarded by lack of transport."

(i) Summary of Projects.

The following table shows, under three main headings, the present volume and value of public works projects in the Region :-

Tables on pages 36 and 37.

= 35 =

Public Works Projects in Abruzzi-Marche Region.

Type	Initiated during Month	Cost (Lire)	Completed during Month	Cost (Lire)	In during
Schemes of Military Priority					
Bridges	5	2,100,500	12	5,486,650	
Roads	1	155,000	-	--	
Total	6	2,255,500	12	5,486,650	
Schemes other than of Military Priority but for which the approval of AC/AMG was required					
Roads	5	3,141,000	6	3,647,000	
Bridges	24	26,521,000	5	1,765,000	
Public Buildings, Schools, etc.	17	10,933,000	-	--	
Debris Removal	1	550,000	5	1,091,000	
Waterworks and Sewerage	1	350,000	2	1,243,000	
Housing	-	--	-	--	
TOTAL	48	41,495,000	18	7,716,000	

238

Public Works Projects in Abruzzi-Marche Region.

Initiated during Month	Cost (Lire)	Completed during Month	Cost (Lire)	In progress during Month	Cost (Lire)
Schemes of Military Priority					
5	2,100,500	12	5,486,650	40	19,531,400
1	155,000	-	--	1	155,000
6	2,255,500	12	5,486,650	41	19,686,400
than of Military Priority but for which the approval of AC/ANG was required					
5	3,141,000	6	3,647,000	37	30,530,250
24	26,521,000	5	1,765,000	35	34,311,500
17	10,233,600	-	--	2	205,000
1	550,000	5	1,091,000	6	6,728,750
1	350,000	2	1,243,000	1	100,000
-	--	-	--	-	--
48	41,495,000	18	7,746,000	81	72,175,500

Schemes handled independently by Italian Authorities

<u>T y p e</u>	<u>Initiated during October</u>	<u>C o s t (Lire)</u>	<u>Completed during October</u>	<u>C o s t (Lire)</u>
Roads	10	1,663,225	8	--
Bridges	--	--	5	--
Debris Removal	--	--	29	4,585,310
Public Buildings, Schools, etc.	47	6,068,450	2	--
Housing	4	3,264,000	--	--
TOTAL	61	10,995,675	44	4,585,310

Schemes handled independently by Italian Authorities

Initiated during October	Cost (Lire)	Completed during October	Cost (Lire)
10	1,663,225	3	--
--	--	5	--
--	--	29	4,585,310
17	6,068,155	2	--
4	3,264,000	--	--
61	10,995,675	44	4,585,310

26. SUMMARY (See Model in Annex).

(a) General Remarks.

This Sub-Commission has had no representative in Sardegna for the past three months. The information upon which the following brief report is based has been furnished by the "Provveditore alle Opere Pubbliche di Cagliari," through the Regional Commissioner.

(b) Personnel.

The Provveditore complains of inadequacy of personnel and remarks that his already insufficient staff recently suffered further reduction as a result of expatriation.

(c) Highways and Bridges.

Road maintenance, entrusted to the "Ufficio Speciale del Genio Civile per la Viabilità," has continued steadily, although somewhat hindered by difficulty in finding supplies of road metal. Owing to high contract prices, this work is carried out by direct labour, a fact which enhances the problem of obtaining materials.

Sundry works of bridge repair and reconstruction are in hand but none is deserving of individual mention.

(d) Other Public Works.

(i) Debris clearance in Cagliari.

This work has continued, 6,900 cu.m. of debris having been removed during the month. The progress up to the present time, in clearance of debris and demolition of dangerous buildings in Cagliari, can be reckoned as 80% of the original agreed program.

(ii) Repair of houses and public buildings.

Repair of private houses damaged by military operations has continued without interruption. A plan has also been drawn up for attention to 90 houses which were only slightly harmed and which, when rendered habitable, will afford accommodation for 1,500 persons.

Although the repairs to school buildings were substantially completed by the beginning of November, it was not possible to reopen the schools on 6 Nov., as had been intended, owing to difficulty in obtaining glass for the replacing of the windows. A limited quantity of glass has been obtained; sufficient to enable

(c) Roadways and Bridges.

Road maintenance, entrusted to the Ufficio Speciale del Genio Civile per la Viabilità, has continued steadily, although somewhat hindered by difficulty in finding supplies of road metal. Owing to high contract prices, this work is carried out by direct labour, a fact which enhances the problem of obtaining materials.

Sundry works of bridge repair and reconstruction are in hand but none is deserving of individual mention.

(d) Other Public Works.(1) Débris clearance in Cagliari.

This work has continued, 6,900 cu.m. of debris having been removed during the month. The progress up to the present time, in clearance of debris and demolition of dangerous buildings in Cagliari, can be reckoned as one of the original agreed program.

(11) Repair of houses and public buildings.

Repair of private houses damaged by military operations has continued without interruption. A plan has also been drawn up for attention to 99 houses which were only slightly harmed and which, when rendered habitable, will afford accommodation for 1,580 persons.

Although the repairs to school buildings were substantially completed by the beginning of November, it was not possible to re-open the schools on 6 Nov., as had been intended, owing to difficulty in obtaining glass for the replacing of the windows. A limited quantity of glass has, however, since been obtained; sufficient to enable some of the more important schools to be opened.

Partial restoration of the Palazzo delle Poste e Telegrafi, Cagliari, has proceeded and is hoped to be finished by the end of the year.

(111) Land drainage and Malaria control.

237

Anti-malaria work was continued during the month, and

approval is sought for a further program of urgent measures estimated to amount to 92 million lire in total cost.

(c) Electricity.

Rehabilitation of electrical plant has continued, particularly at the higher Plomondosa hydro-electric generating station. Reinstatement of the distribution network in Cagliari has made further progress, and the street-lighting system has now been extended to the Corso Vittorio Emanuele, the Via Roma and the Piazza Indipendenza.

(f) Other Public Works.

(1) Water.

Recent rains have slightly raised the water level in the reservoirs at Carbonia, and it is estimated that under the present strict rationing there is enough water in store to meet the needs of Cagliari until the end of December.

(ii) Gas.

The distribution of town-gas in Cagliari is still restricted to about one fifth of the city area. Limitation of coal supplies and lack of materials have jointly prevented any further extension.

(g) Materials.

The Provveditore complains particularly of scarcity of timber and tiles, both of which materials are much needed in the repair of damaged houses and public buildings.

(h) Transport.

There is, of course, a shortage of transport.

26. POSCATA REGION (Regional Engineer: Major P.S.I. IER. R.E.).

(a) General Remarks.

The number and scope of projects handled by the Regional Engineer and his staff has further increased, and the area in which they are working has been enlarged, by mutual agreement between Fifth Army A.M.F. and Regional A.M.F., to include the Provinces of Pistoia and Lucca. It now covers approximately 9,000 square miles. This increased scope, involving much work that would ordinarily have

Recent rains have slightly raised the water level in the reservoirs at Garcedu, and it is estimated that under the present rationing there is enough water in stores to meet the needs of Cagliari until the end of December.

(11) Food.

The distribution of town-gums in Cagliari is still restricted to about one fifth of the city area. Limitation of coal supplies and lack of materials have jointly prevented any further extension.

(12) Materials.

The Provveditore complains particularly of scarcity of timber and glass, both of which materials are much needed in the repair of damaged houses and public buildings.

(13) Transport.

There is, of course, a shortage of transport.

26. TOSCANI REGION (Regional Engineer: Major P.S.L. IRE, R.E.).

(a) General Remarks.

The number and scope of projects handled by the Regional Engineer and his staff has further increased, and the area in which they are working has been enlarged, by mutual agreement between Fifth Army A.M.G. and Regional A.M.G., to include the Provinces of Pisa and Lucca. It now covers approximately 8,000 square miles. This increase in area, introducing much work that would ordinarily have been handled by Army A.M.G., has placed a heavy burden upon the Regional Engineer and his staff and it was, therefore, deemed necessary to attach a number of Officers temporarily from other Regions.

The large amount of work required in the City of Florence continues to necessitate the almost full-time services of Major Ziemerdson, who has been attached to the S.C.A.O. Florence since the City was liberated. In addition, the greater part of the time of an Electrical and Utilization Officer is also devoted to rehabilitation and rationing problems in the City.

(b) Staff and Personnel.

The following Officers have been temporarily attached to the Regional Engineer's staff in order to assist in coping with the large amount of work already mentioned:- Maj. Eberle, Maj. Wooster, Maj. Crowther and Maj. Knight.

(c) Highways and Bridges.

The floods of 2 November caused great damage to culverts and bridges throughout the Region, and a large volume of work has resulted. The Highways Officer has been strenuously engaged on the examination of projects and in organising contracts through the Genio Civile.

Reorganisation of the Genio Civil in both State and Provincial roads is in hand, and maintenance projects, necessitating additional labour, are being authorised in all provinces of the Region.

Bridge repairs are in hand in the city of Florence.

(d) Other Public Works.

The volume of public works is steadily increasing, particularly in the Provinces of Florence and Grosseto, a total cost of over 1.7 million lire being now involved.

The more important works are removal of debris and dangerous structures, flood control works (including removal of bridge debris from rivers), and the repair of water supplies and sewers. Projects are also in hand for first-aid repairs to houses and other buildings (to accommodate the homeless) and to public buildings and hospitals, whilst protective works in ever increasing numbers are being carried out at the request of the Monuments and Fine Arts Sub-Commission, A.C.

The floods that occurred on 2 November caused great damage to river banks and also to flood prevention works in course of execution. The towns of Grosseto and Pisa suffered most, the former where thirteen persons lost their lives in the flood of the River Ombrone - having been inundated to a depth of 2.5 metres. It is of interest to note that so rapid a rise in the level of the River Arno had not occurred since 8 November 1841, only six days less than a century before.

Prompt measures were taken to repair the more dangerous banks in the banks of the River Ombrone, near Grosseto, but as military units were unable to render assistance with mechanical equipment, work proceeded slowly by hand, and a second flood which occurred on 24 November resulted in further damage.

Work on the Arno and Grosseto rivers is proceeding well.

(e) Electricity.

roads is in hand, and maintenance projects, necessitating additional labour, are being authorised in all Provinces of the Region.

Bridge repairs are in hand in the city of Florence.

(4) Other Public Works.

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Prompt measures were taken to repair the more dangerous breaks in the banks of the River Ombrone, near Grosseto, but as military units were unable to render assistance with mechanical equipment, work proceeded slowly by hand, and a second flood which occurred on 28 November resulted in further damage.

Work on the Arno and Sorchio rivers is proceeding well.

(5) Electricity.

(i) Generation.

The main changes in the production of electric power are a reduction in the generating capacity of the Livorno plant to about 3,000 KW, and the expectation that the Piana della Rocca generating station will be in operation shortly.

(iii) Reconstruction.

Repair of the two 125 KV transmission lines, "Tiano della Puccia - S. Romano - Tavernuzze" and "Tavernuzze - Riffredi", both requested by A.A.T., is proceeding. The Società Elettrici Galt-Valdarno, which is responsible for the former, is very active and co-operative, and is progressing well with the work. Some difficulty, however, has been experienced with the latter line owing to lack of initiative on the part of the engineers of the State Railways, but the difficulty is being overcome.

Considerable progress has been made in the rehabilitation of local 10 KV lines in the Province of Florence, which are required in order to permit the allocation of power to olive presses during off-peak periods.

(iii) Rationing.

The Rationing Committee for the City of Florence is working well, but the military load has been rapidly increasing.

(f) Other Public Utilities.

(i) Water.

No outstanding problems in connection with water supply have been experienced during the month. The supply to the City of Florence is now almost normal.

(ii) Gas.

Work has been initiated for rehabilitation of the Florence gas works. With the object of supplying sufficient gas to civilian consumers to enable them to cook a mid-day meal, and so to reduce the amount of road transport at present required for bringing fuel into the city. The operation of the gas works will be dependent on the railway situation, but it is hoped that, after the completion of repairs now in hand, there will be full transportation facilities available for carrying supplies of gas coal to the city. In any case, however, a period of sixty days will be necessary for raising the ovens to operating temperature and this cannot even be commenced until adequate supplies of fuel are available. Actual production of gas cannot, therefore, be expected to commence before the end of February next.

The pipe line for conveying natural methane gas from

are required in order to permit the allocation of power to olive presses during off-peak periods.

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The pipe line for conveying natural methane gas from Piastromale to Florence is under repair. When it is in operation, the responsibility for compressing and utilising the gas in lieu of petrol for road vehicles will be principally in the hands of the C.I.P.

(iii) Tramways.

Rehabilitation of tramways in Florence has been expedited and certain lines have already been energized for test purposes. As soon as sufficient power can be spared, services will be put into operation for conveying workers to and from the city.

(x) Transport.

The Regional Engineer has again expressed his anxiety over the shortage of road transport and has complained particularly of the lack of tyres which is preventing some existing vehicles from being used. In this connection he says:-

"Unless something can be done at once, not only our own officers, but the officials of the utility companies and Government departments, upon whom we are placing increasing responsibilities, will be "grounded" and unable to carry out the functions required of them."

(k) Summary of Projects.

The following table shows the present volume and value of public works projects in the Region, excluding the small schemes initiated and financed independently by the Italian Authorities:-

Table on page 43.

"Unless something can be done at once, not only our own officers, but the officials of the utility companies and government departments, upon whom we are placing increasing responsibilities, will be 'grounded' and unable to carry out the functions required of them."

(h) Summary of Projects.

The following table shows the present volume and value of public works projects in the Region, excluding the small schemes initiated and financed independently by the Italian Authorities:-

Table on page 41.

235

Public Works Projects in Togoana Region.

Type	Initiated during Month	Cost (Lire)	Completed during Month	Cost (Lire)	In p during
Schemes of Military Priority					
Bridges	--	--	1	7,900,000	
Roads	2	3,603,900	2	4,210,000	
Total	2	3,603,900	2	11,710,000	
Schemes other than of Military Priority but for which the approval of AG/AMG was required					
Roads	6	1,284,420	2	166,630	
Public Buildings, Schools, etc.	28	8,207,773	1	45,000	
Debris Removal	28	11,153,200	7	1,921,006	
Waterworks, Sewers and Flood Control	24	14,195,000	3	550,927	
Housing	--	--	--	--	
Bridges	19	7,973,829	4	1,382,927	
TOTAL	105	43,414,222	17	4,466,484	

234

Public Works Projects in Togoana Region.

Initiated during Month	Cost (Lire)	Completed during Month	Cost (Lire)	In progress during Month	Cost (Lire)
Schemes of Military Priority					
-	-	1	7,500,000	14	24,761,000
2	3,603,900	3	4,210,000	17	36,553,600
2	3,603,900	4	11,710,000	31	61,314,600
Military Priority but for which the approval of AC/AMO was required					
16	1,281,420	2	166,630	6	1,264,420
23	8,307,773	1	45,000	11	3,759,588
28	11,153,200	7	1,921,000	19	9,584,900
21	12,795,000	3	950,927	40	22,356,204
-	-	-	-	-	-
19	7,973,822	4	1,382,927	22	5,477,954
05	43,414,222	17	4,466,494	98	43,463,066

27. EMILIA REGION (Regional Engineer: Major W.E. STANN)

(a) General Remarks.

All liberated areas in Emilia Region are entirely within Army Zones. Forlì Province is almost free from enemy troops but there is still some operational activity in the western portion. Small units in Ravenna, Cesena and Bologna Provinces are occupied by Allied troops.

As no part of the Region is yet under Regional AMG control, the Regional Engineer and his staff have been engaged in assisting Fifth and Eighth Army Headquarters and have, of course, worked under their direction.

(b) Staff and Personnel

The Regional Personnel has been divided as follows:

Fifth Army AMG.

Capt. Rogers (Electrical) - HQ. at Salino
Capt. Webster (Highways) - HQ. at Pistoia
Pfc. D'Angelo (Clerk) - At Pistoia.

Eighth Army AMG.

Med. Spann (Regional Engineer) - HQ. at Riccione
Maj. Gambale (Public Works) - HQ. at Riccione
Pfc. Campanelli (Clerk) - At Riccione

No Italian Civilian assistants have yet been engaged.

(c) Highways and Bridges

Routes 16, 9, 72 and 67 are now being maintained as military highways. Route 74 no longer has military priority. All work is being done by military units and they are making use of civilian labour where necessary.

Reconnaissance surveys have been made in Forlì Province to determine where bridges should be rebuilt for facilitating the distribution of civil supplies. The Genio Civile is being re-organized and will immediately start planning the most urgent works. The need for bridge reconstruction increases rapidly as Bailey Bridges are dismantled and withdrawn for operational use.

(d) Other Public Works

(b) Staff and Personnel

The Regional Personnel has been divided as follows:

Fifth Army AGO.

Capt. Rogore (Electronics) - HQ. at Salting
 Capt. Weber (Highways) - HQ. at Pistoia
 Cpl. D'Angelo (Clerk) - At Pistoia.

Eighth Army AGO.

Maj. Spenn (Regional Engineer) - HQ. at Riccione
 Maj. Smith (Public Works) - HQ. at Riccione
 Pfc. Campanelli (Clerk) - At Riccione

No Italian Civilian assistants have yet been engaged.

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Routes 16, 5, 72 and 67 are now being maintained as military highways. Route 71 no longer has military priority. All work is being done by military units and they are making use of civilian labour where necessary.

Reconnaissance surveys have been made in Forlì Province to determine where bridges should be rebuilt for facilitating the distribution of civil supplies. The Genio Civile is being re-organised and will immediately start planning the most urgent works. The need for bridge reconstruction increases rapidly as Bailey Bridges are dismantled and withdrawn for operational use.

(d) Other Public Works

Buildings in the area that was covered by the Gothic Line were more severely damaged than those elsewhere. No detailed surveys of the damage have yet been made. The "lowlands" in the Ravenna area are flooded and much damage has been done to pumping installations. One pumping station at Cervia has been restored to operation.

(a) Electricity.

The area at present liberated obtained the bulk of its electric power from outside sources. Therefore, the only power now available is from small units set up under Army Control in Battaglia, Rimini, Cervia, Cesena and Modigliana. It is hoped to provide a limited power supply for Forlì before the end of December.

Electricity rationing is under Army control.

(f) Other Public Utilities.(1) Water.

Damage has been great in all waterworks so far inspected, but limited supplies have been made available for Cattolica, Riccione, Rimini, Cervia, Cesena and Forlì. The water supply of Ravenna was damaged and the main pipe line broken in many places. Plans are in hand for repairing these portions of the system that are in Allied hands.

(ii) Gas.

Gas installations so far seen are badly wrecked. In view of the acute coal shortage no early repairs are contemplated.

(c) Industries and Factories.

Data are not yet to hand regarding the electric power requirements of the various industries. Some flour mills are operating the survey of factories is not yet complete.

(h) Materials.

There is a shortage of cement and bricks for bridge reconstruction. The timber available is limited to salvaged material and the output of Army saw mills.

(i) Transport.

There is no civil transport in the area, and the enemy appears to have carried away all the trucks. Therefore, the transport necessary for constructional work, to convey both men and materials, is obtainable only from Army sources and its availability is very limited.

The civilian engineering officials have some cars but they are not available for use.

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The civilian engineering officials have some cars but they are continually taking for tyres.

28. PIEMONTE and LIGURIA REGION. (Regional Engineer: Lt. Col. C.R. BIRCHETT)

The organization of the Regional Engineering Division remains the same as was outlined in Paragraph 28 of the September report. The Regional Engineer and some of his staff have been partly occupied in preparing a hand-book of relevant instructions, orders, forms and methods of procedure.

The Officer personnel nominally remains unchanged, but by 30th November only Lt. Col. Birchett (Regional Engineer) and Capt. Robb were left at Regional Headquarters, all other Officers of the Engineering Division having been attached to other Regions for temporary duty.

The Regional Engineer and his reduced Staff have been performing useful duty in the territory around the present temporary Headquarters of the Region. These services have been performed in collaboration with, and for the assistance of, the Regional Engineer officially responsible.

Planning for work in Piemonte and Liguria has continued, and studies have been made of available information on water supplies, drainage systems, electricity generation and distribution, highways, industries, and so on.

29. LOMBARDIA REGION. (Regional Engineer: Lt. Col. C.R. BOLICK, P.A.)

There is nothing to report from this Region apart from some further planning. Lt. Col. Bolick (Regional Engineer), who had gone forward to Advance Regional Headquarters early in October, was later recalled and attached to the Engineering Division of Lazio-Umbria Region, where he remains on temporary duty. Major Crowther, Utilities Officer, has been attached for temporary duty to Fifth Army A.M.S. since September. Other Officers nominally allocated to the Regional Engineer's staff have not yet been required to report for duty.

30. VENEZIA REGION. (Regional Engineer: Major W. KNIGHT, M.C.)

The Regional Engineer and his skeleton staff are attached to other Regions for temporary duty, but they are at the same time studying problems expected to be met in their own Region.

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30. VENETIA REGION. (Regional Engineer: Major T. WRIGHT, M.C.)

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L.A. JERRY
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Lt-Colonel 232
Director.

HEADQUARTERS

ALLIED CONTROL COMMISSION

Public Works and Utilities Sub-Commission

Adj 394

10 June 44

SUMMARY OF ACTIVITIES DURING MAY 1944.

1. Remarks.

The work of the Sub-Commission in May was not marked by any spectacular changes in the nature of its duties, or any additions thereto, but rather by a process of evolution, the object of which was an all-round improvement in efficiency, greater expedition, and the minimizing of possible causes of misunderstanding in various directions.

Consistent with its duties to the Chief Commissioner, the Sub-Commission has, over a period now approaching six months, endeavored to keep in close contact with the Director of Works, A.A.W., the Chief Engineers of Nos. 1, 2 and 3 Districts (Military) and with the Chief Engineer S.B.S.

No. 1 District is Sicily, whilst Nos. 2 and 3 Districts are respectively, and broadly, the eastern and western sides of the mainland peninsula. S.B.S. areas are two, the more important lying north of Naples, and the other (for some reason a detached area) lying along the coastal strip south of Salerno. With the changing military situation these authorities have found it necessary to make frequent changes as to priorities e.g. stretches of road, bridges re-construction, etc. and in regard to organizational methods as between them, this Sub-Commission, and the Italian Genio Civile (Public Works). At a meeting on the 16 May, for example, the Chief Engineer No. 3 District requested, inter alia, that we should make special efforts to obtain contractors for three specified lengths of road; from that day, responsibility for all permanent bridge construction and supervision would become ours; two special bridges indicated, in the first instance, he to be in no way responsible for survey and measurements, either before contractors started work or on completion, another quarry was to be handed over; special requests concerning railway bridges and other temporary bridges, construction or removal; detailed suggestions about availability of equipment, transport, and two A.A. officers to act in a liaison capacity, with this Sub-Commission. This is merely an indication of one of a series of changes that took place in the month, concerning one of the Chief Engineer's Districts. It is a small cross-section of the larger whole.

The aim of the Sub-Commission is, in general, to assist the Armies in every possible way by relieving them as rapidly as possible of engineering tasks, handing over these to contract or direct labour agency of a civil character and supervising, controlling, and above all expediting them (through the over-all agency of the Italian Genio Civile.)

With this in view conferences are held with the Director General, (Sig. Tiziano) two or three times weekly, and two or three times a month with the Minister of Public Works himself (Sig. Tarchiani). Reference was made in Para. 1 of the April report to the fact that Sig. Tarchiani had taken over the "Portfolio" mentioned, and it was hoped that he would be able to bring about a greater degree of "drive and initiative". A month's further experience, in collaboration with him, has confirmed that the hope is likely to be realized at no distant date. This was

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The aim of the Sub-Commission is, in general, to assist the Minister in every possible way by relieving them as rapidly as possible of engineering tasks, handing over them to a contract or direct labour agency of a civil character and supervising, controlling, and above all expediting them (through the over-all agency of the Italian Genio Civile.)

With this in view conferences are held with the Director General, (Sic, Turin) two or three times weekly, and two or three times a month with the Minister of Public Works himself (Sic, Turin). Reference was made in Para. 1 of the April Report to the fact that Sigs. Tarchiani had taken over the "Portofoglio" mentioned, and it was noted that he would be able to bring about a greater degree of "drive and initiative". A month's further experience, in collaboration with him, has confirmed that the hope is likely to be realised at no distant date. This was particularly evidenced between the 5 and 10 May when the Minister and the Director General recommended the Director of this Sub-Commission on an inspection tour in Sicily. The Minister gave orders, for example, that Italian engineers to the number of about 70, found to be doing little work of immediate value, should be transferred to another branch in which the tasks lying ahead are of real importance and urgency. Similarly, the Minister gave orders completing the assignment of the former A.S.S.S. Road Organisation (a Fascist creation) with the Genio Civile. In the Sub-Commission itself there was an important internal change, Lt. 231 Colonel being transferred to civil duties of a non-technical character, and his responsibilities being taken over by Lt. Col. Thompson. This means that instead of the military highways and bridges program being divided into two, one in Italian Government territory and the other in Military Government territory, both areas are now under one control. Further, in both these areas and in Sicily, responsibility for general public works is now under Lt. Col. Thompson.

A further change calculated to give better results was that Lt. Col. Lapper, in addition to his specialized work in the field of electrical engineering, took over responsibility for the control of public utilities, e.g. waterworks, gas, and main drainage, in addition to electricity. This change was made possible by the arrival from the U.S., during the month, of a number of highly qualified engineer officers able to take a considerable degree of individual responsibility. It is intended to retain two or three of these specialist officers at the headquarters of the Sub-Commission, sending them out as occasion may require to investigate more complex problems, and to give assistance on their to Regional Engineers at their various stations. Three examples of the usefulness of this occurred towards the end of the month. The Army asked us to press on with the completion of contracts, abandoned in 1943 by the Italians, regarding water-towers, and pumping plant at Capua, increased supplies of water by the Army being urgently needed. A question arose about large quantities of bricks and other material being required at Benevento for main-drainage reconstruction. Some lists of projects contemplated were submitted by Salerno Province (Region III) which required a specialized investigation. Two of the senior officers recently arrived from the U.S. were assigned to these tasks with the result that the Capua scheme is again making progress, materials actually required at Benevento are found to be considerably less than the original demand, and the numerous schemes in Salerno Province, including reconstruction work at a hospital (estimated to cost 3,200,000 lire) have been cut down to a strict series of priorities, some eliminated completely, and others have been reduced to what is commonly known as mere "first aid repairs". One of the officers also made specific recommendations regarding an electric power station at Capua, and there were others regarding main-drainage proposals for the town of Battipaglia which brought about substantial reduction in a demand for controlled structural materials.

Regions.

The April reports of the Sub-Commission gave a summary of work done in the various regions. This, and succeeding monthly reports, will continue the practice. Closer contact is now being maintained with Regional Engineers on technical and routine matters, directly, and on major matters or those of policy through Regional Commissioners. Up to a recent period it is probably true to say that the Regional Engineers and their staffs have been to a large extent autonomous and independent units. An outstanding example of this was Sicily where, even during the early weeks towards the end of 1943 when A.C.C. Headquarters were at Palermo, there was little or no recognition of the fact that questions of a technical nature, finances, or public works policy should be under a centralized control. It might not be an exaggeration to say that such conditions in the Island were chaotic. Even had they been as bad as that there could be little blame attached, having regard to the widespread destruction that accompanied the invasion of the Island, the demoralization and almost extinction of the Italian Public Works Organization, and the fact that the Engineer Staff of A.C.C. for the whole Island did not exceed about four officers. Very considerable pressure was brought to bear on them by the Army. Civil Affairs officers, and Italian local authorities, to put in hand schemes of all kinds, many of which could very well have been left over for months, or even until a considerable period after the end of the war. The Deputy-Director of the Sub-Commission paid a special visit to Sicily at the end of March and the Director, accompanied by the Minister, paid a visit in the early part of May. Both these visits were directed, in general, to correcting some of the matters that were clearly apparent on ground lines. The example of Sicily is perhaps an extreme one, but it

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ibility for a very large mileage of military highways, including bridges reconstruction, a specialized organization had to be set up. This still continues, with a substantial number of engineer officers at various points between Catania and Catanzaro in the south, to Reggio and Caserta in the north. Similarly, the urgency of the electric power situation (as to this refer to pages 6 and 7, para. 6 of the April report) made it necessary, between February and April, to send out a number of electrical specialists responsible not at the Regional Engineers, but directly to this Headquarters. With increasing commitments in Rome, and possibly far to the north of that City, it is felt that the time has now come when these two specialized and separate branches of work should cease to be controlled directly by the Sub-Commission, and that there will be a balance of advantage in putting military highways, bridges, and also electric power matters directly under the respective Regional Engineers. Responsibility will be more clearly defined. Regional Engineers can operate their respective staffs as an integrated team; correspondence will be reduced in volume; the organization in Rome will be made simpler; and at the same time it is hoped more efficient. Further, engineering personnel will be able to take full advantage of the Regional organization as it exists, in matters such as transport facilities, obtaining supplies and structural materials, and in the regular receipt of general directives, orders, and other documents issued by the various branches of A.C.C. Headquarters. The change-over should be a smooth one, since the officers assigned to these various duties will be transferred to the Regions and the functions of these various officers will remain substantially the same. It is hoped to inaugurate the new system as speedily as possible after the conference of the 12 June. An indication of the categories, and numbers, of these Regional Engineering staffs will be sent by reference to the next paragraph of this report.

(Para. 2 (a) gives a list of officers at this Headquarters (Naples), and on detached duty.

Para. 2 (b) gives a list of Regional Personnel.)

The numbers are 26 and 33 respectively, giving a total of 59 as on 31 May. The lists may not remain as they now are for more than a few days since further officers are expected from the U.S.A. in June, and these will certainly be demanded, even more insistent than recently, for the assignment of officers for duty northwards, to Rome and beyond.

Amongst the large number of names appearing in promotion lists, both American and British issued during May, the names of only four officers of this Sub-Commission appeared. Major Knight's name also appeared in the British list, though this only confirmed the rank of Major which he had been holding for some months.

2. Monthly Rolls of Officers.

(a) at Headquarters, and on temporary duty elsewhere:-

Lieut-Col. L.A. Kenny, C.B.	(4)	Director, Sub-Commission.
Lieut-Col. G.E. Rhodes, R.E.	(5)	Deputy Dir., Sub-Commission.

Public Works Division.

Lieut-Col. V.S. Thompson, R.C.E. (2) Chief, Public Works Division.

similarity, and at the same time it is hoped more efficient. Further, engineering personnel will be able to take full advantage of the Regional organization as it exists, in matters such as transport facilities, obtaining supplies and structural materials, and in the regular receipt of general directives, orders, and other documents issued by the various branches of A.C.C. Headquarters. The change-over should be a smooth one, since the officers assigned to these various duties will be transferred to the Regions and the functions of these various officers will remain substantially the same. It is hoped to inaugurate the new system as speedily as possible after the conference on the 12 June. An indication of the categories, and numbers, of these Regional Engineering staffs will be sent by reference to the next paragraph of this report:-

(Para. 2 (a) gives a list of officers at this Headquarters (Regional, and on detached duty).

Para. 2 (b) gives a list of Regional Personnel.)

The numbers are 26 and 33 respectively, giving a total of 59 as on 31 May. The lists may not remain as they now are for more than a few days since further officers are expected from the U.S.A. in June, and there will certainly be demands, even more insistent than recently, for the assignment of officers for duty northwards, to Bova and beyond.

Amongst the large number of names appearing in promotion lists, both American and British issued during May, the names of only four officers of this Sub-Commission appeared. Major Knight's name also appeared in the British list, though this only confirmed the rank of Major which he had been holding for some months.

2. Nominal Rolls of Officers.

(A) At Headquarters, and on temporary duty elsewhere:-

Lieut-Col. L.A. Jenny, C.E., (A) Director, Sub-Commission.
Lieut-Col. G.S. Hughes, R.E., (B) Deputy Dir., Sub-Commission.

Public Works Division.

Lieut-Col. V.S. Thompson, R.C.E. (B) Chief, Public Works Division.
1st. Lieut. F.W. Shepherd, (A) Asst. to Chief, P.W. Div.

Major G. Baucher, (B) Headquarters.

Major M.A. Ryland, (A) T/D Salerno.
Capt. T.R. Brownlee, (A) T/D Catanzaro.
Capt. A.N.J. Hubbard, (B) T/D Salerno.
Capt. R.E. Webster, (A) T/D Salerno.

Major A.O. Farley, (B) T/D Lucera.
Capt. J.L. Lambie, (B) T/D Lucera.
Capt. H.A. Walker, (B) T/D Lucera.

Public Works Division (cont'd)

Capt. E.B. Peinman
Capt. W.F. Gentry
Capt. A.G.A. Saul

(A) T/D Caserta.
(A) T/D Castellammare.
(B) T/D Caserta.

Major W.H. Gamble,

(B) T/D Caserta.

Utilities and Admin. Division.

Lieut-Col. W.M. Lapper,
Capt. L.W. Langdon,

(B) Chief, Utilities & Admin. Division.
(A) Asst. to Chief, Util. & Admin. Div.

Major H.W. Westwood,
Capt. E.H. Robert,
Capt. A.E. Freds,
Lieut. C.W. Atkins,

(B) Headquarters.
(A) Headquarters.
(B) Headquarters.
(B) Headquarters.

Major E.J. Barry,
Major V.S. Benton,
Capt. H.J. Fossom,
Capt. F.A. Ryan,

(A) HQ., att. F.D.S.
(A) HQ., att. Palatino.
(A) T/D Region IV.
(A) T/D Region III.

(B) On present information and subject to correction the following Public Works Officers are permanently assigned to Regions as shown:-

Region I.

Lieut-Col. G.E. Hollick
Major D.A. Boyd
1st Lt. L.J. Hodges
Major A. Crowther

(A) Regional Engineer Officer.
(B) Public Works Officer.
(A) Public Works Officer (Missing)
(B) Elec. Util. Officer.

Region II.

Major W. Knight
Lieut. J.W.L. Butcher

(B) Regional Engineer Officer
(B) Elec. Util. Officer.

Region III.

Lieut-Col. L.J. Mansley
Major L.R. Danning
2nd Lt. F.A. Sorrells

(A) Regional Engineer Officer.
(B) Public Works Officer.
(A) Elec. Util. Officer.

Region IV.

Colonel E.J. Edwards
Lieut-Col. G. de G.E.
Findley
Major A.G. Evans
Capt. T.J. Spriggs
Capt. J.S.C. Wilson.
Headquarters

(B) Regional Engineer Officer.
(B) Public Works Officer.
(B) Public Works Officer.
(A) Public Works Officer.
(B) Public Works Officer.

Home Sub-Region.

(att. 5th Army HQ)

Lieut-Col. C.F.
Birchett
Major A.E. Michel
Major G.F. Buckley
Major I.C. Rively
Capt. B.M. Gaither

(A) Engineer Officer.
(A) Public Works Officer.
(B) Public Works Officer.
(A) Public Works Officer.
(A) Public Works Officer.

Capt. E.H. Rogers,
Capt. A.E. Keady,
Lieut. C.W. Atkins,

Major Z.J. Barry,
Major V.S. Benton,
Capt. H.J. Roemer,
Capt. P.H. Ryan,

(A) Headquarters,
(B) Headquarters,
(B) Headquarters,

(A) HQ, att. P.B.S.,
(A) HQ, att. Palarm,
(A) T/D Section IV,
(A) T/D Section III,

(E) On present information and subject to correction the following Public Works Officers are permanently assigned to Regions as follows:-

Region I. Lieut-Col. C.F. Bellick (A) Regional Engineer Officer,
Major D.A. Boyd (B) Public Works Officer,
1st Lt. I.J. Hodges (A) Public Works Officer (Mansina)
Major A. Crovther (B) Elec. Util. Officer.

Region II. Major W. Knight (E) Regional Engineer Officer
Lieut. J.W.L. Patcher (B) Elec. Util. Officer.

Region III. Lieut-Col. I.J. Hensley (A) Regional Engineer Officer,
Major L.R. Denning (B) Public Works Officer,
2nd Lt. R.A. Strollin (A) Elec. Util. Officer.

Region IV. Colonel E.J. Edwards (E) Regional Engineer Officer,
Lieut-Col. G. de C.E. Fincley (B) Public Works Officer,
Major A.G. Evans (B) Public Works Officer,
Capt. F.B. Spriggs (A) Public Works Officer,
Capt. J.S.C. Wilson-Beethote (B) Public Works Officer.

Here Sub-Region.

(Lieut. 5th Army ALG)

Lieut-Col. C.F.

Stinchett

Major A.E. Michel

Major G.F. Buckley

Major J.C. Rively

Capt. B.M. Galtner

Capt. F.F.C. Stephens

Lieut. E.F. Wedd-Brown

(A) Engineer Officer,
(A) Public Works Officer,
(B) Public Works Officer,
(A) Public Works Officer,
(A) Public Works Officer,
(B) Elec. Util. Officer,
(B) Elec. Util. Officer.

Region V. Major C.A. Latimer (A) Regional Engineer Officer **228**
Major J.E. Roden (B) Public Works Officer,
1st Lt. J.H. Walsh (A) Public Works Officer,
Major J.S. Barnett (B) Elec. Util. Officer.

Region VI. Major W.M. Spann (A) Regional Engineer Officer,
Capt. E.E. Salta (A) Public Works Officer.

Region VII. Major W.F. Chamberlain (a) Regional Engineer Officer.

Region VIII. Major F.S.L. Lee, Capt. F.D. Rely (a) Regional Engineer Officer, Elec. Util. Officer.

8th Army gnd. 2nd. Lt. M.J. Desideri (a) Moves with 8th Army Base, Excessions-Justi (W.I. of base) (Western portion)

Nation Engineer. Not doing Division work on Highway Reconstruction, between 8th Army Base and Italian Civilian.

14th Corps. 2nd. Lt. M. Garcia, (a) Moves with 8th Army in Eastern portion.

Not an Engineer but doing Division work on Highway Reconstruction, between 8th Army Engineers and Italian Civilian.

Remarks.

(a) Capt. T.F. Brownlee (a) has now been assigned to HQ, P.I.A.U. Sub-Commission and is placed on temporary duty with Region VII.

(b) Major W.H. Gable (E) has similarly been reassigned and is now placed on temporary duty with Region I.

(c) Major W.F. Chamberlain (a) assigned to Region VII as Regional Engineer Officer.

(d) Lieut-Col. J.C. Smith (a) assigned to Region IV, Rome Sub-Region, (a) 5th. Army A.S.G.) as Electrical Utilities Officer.

(e) Major W. Knight (a) assigned to Region II as Regional Engineer Officer.

(f) Lieut-Col. J.F. Laborn (a) moving last this Sub-Commission is assigned C.A.O., Region V, on 11 May 44.

(g) Major J.C. Rively (a) assigned to Region IV, Rome Sub-Region as Public Works Officer 13 May 44.

(h) Capt. F.D. Rely (a) assigned to this Sub-Commission and is awaiting transfer to Region VIII as Electrical Utilities Officer.

(i) Major F.S.L. Lee (a) reported to these HQ's and awaits assignment to Region VIII as Regional Engineer Officer.

(j) The following British Officers having arrived from the U.K. are assigned as shown:-

Major A.O. Evans to Region IV as Public Works Officer.

Capt. F.S.C. Stephens to Region IV, Rome Sub-Region, as Elec. Util. Offr.

Major S. Brucher to HQ, this Sub-Commission in Public Works Division.

Major A.W. Westwood to HQ, this Sub-Commission in Util. and Admin. Div.

Capt. F.H.J. Hibbard to HQ, this Sub-Commission in Public Works Division.

Lieut. C.W. Atkins to HQ, this Sub-Commission in Util. and Admin. Div.

Lieut. E.F. MacBrien reported to HQ, and has been assigned to Region IV, Rome Sub-Region.

Remarks.

- (a) Capt. T.F. Brownlee (a) has now been assigned to HQ, F.W.A.U. Sub-Commission and is placed on temporary duty with Region VII.
- (b) Major W.D. Gamble (2) has similarly been reassigned and is now placed on temporary duty with Region I.
- (c) Major W.F. Chamberlain (a) assigned to Region VII as Regional Engineer Officer.
- (d) Lieut-Col. J.C. Dwyer (a) assigned to Region IV, Home Sub-Region. (see 5th Army A.M.G.) as Electrical Utilities Officer.
- (e) Major W. Knight (2) assigned to Region II as Regional Engineer Officer.
- (f) Lieut-Col. J.F. Lamborn (a) having left this Sub-Commission is assigned C.M.O., Region V, on 11 May 44.
- (g) Major J.O. Hively (a) assigned to Region IV, Home Sub-Region as Public Works Officer 13 May 44.
- (h) Capt. F.B. Kelt (a) assigned to this Sub-Commission and is awaiting transfer to Region VIII as Electrical Utilities Officer.
- (i) Major R.S.I. Lee (2) reported to these HQ's and awaits assignment to Region VIII as Regional Engineer Officer.
- (j) The following British Officers having arrived from the U.K. are assigned as above:-
- Major A.G. Evans to Region IV as Public Works Officer.
- Capt. F.E.O. Stephens to Region IV, Home Sub-Region, as Elec. Util. Offr.
- Major G. Sawyer to HQ, this Sub-Commission as Public Works Division.
- Major H.W. Westwood to HQ, this Sub-Commission as Util. and Admin. Div.
- Capt. R.W.F. Hibbard to HQ, this Sub-Commission as Public Works Division.
- Lieut. C.W. Atkins to HQ, this Sub-Commission as Util. and Admin. Div.
- Lieut. S.F. Wade-Brown reported this HQ, and has been assigned to Region IV, Home Sub-Region.

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Both in March and April additional information was furnished to that officer concerning the public services (and see also Para. 9 of the Sub-Commission's report for March.) It is hoped, in the conditions now obtaining, that the preliminary work undertaken some months ago may be proving of value.

4. State of Inspection. Between the 5 and 16 May, the Director, accompanied by the Minister visited Sicily (already noted above). Between 17 and 21 May he also visited Calabria, Reggio, Bari and Potenza accompanied by Lt. Col. Thompson, more particularly concerning problems connected with military highways and bridges. There was a special conference with the Chief Engineer No. 2 District at Bari, (Lt. Col. Edwards). Results of the Sicily visit were important, and have already been referred to (para. 1 above). In addition, certain highway priorities were re-arranged and others struck out.

The results of the second inspection tour were less satisfactory, especially on parts of the military highways program being slower in some areas than had been originally hoped. Remedial measures were initiated, one of these being, for example, a strong personal protest to the Minister and to the Director-General (a day or two later) about quality and lack of initiative, coupled with "failure to get out and see things for themselves", on the part of certain Italian engineer officers. Other things were also taken. It cannot be too strongly emphasized however that in Italy, as in all other branches of engineering activity, the Sub-Commission cannot nominate a higher standard of performance, in other words "getting results", than that set by the Italian Public Works Organization, itself. Performance was, unfortunately, often still far short of promise. This matter has been twice previously referred to, viz. in Para. 1 of both the March and April reports (which may be perused). When representations are made all kinds of excuses and explanations are offered, ranging from the fact that neither the Public Works Department nor its construction has equipment, transport or materials; it is alleged that the superior engineering staff received such a low scale of salary that it can hardly be expected to do more than the absolute minimum; or, it is stressed that travelling involves other expenses for food and lodging, and present allowances cover only a fractional part of it.

5. Highways and Bridges (Military Priority Lists) and Public Works. All these are now under the control of Lt. Col. Thompson following the transfer of Lt. Col. Laboon (referred to in Para. 1 above). Additional officers were allotted during May and those were posted, in the first instance, to places where they can most quickly get experience.

At the beginning of the month eight bridges on main highways were under construction, and at the end of the month this number had risen to fifteen.

Progress should be fairly rapid as materials required are now allocated. For now bridges were under survey and design at the end of the month, or were being let out to contract. A significant move was (already noted previously in Para. 2 above) that the Chief Engineer No. 3 District decided to transfer immediately all responsibility for bridges to the Sub-Commission.

At the end of May heavy repairs of a major character were in hand on 150 miles of

roads, mostly under contract, whilst road repairs on 791 miles were similarly in hand, either by contract or under strengthened gangs of the "Cantonieri" (direct labour). In spite of unusually heavy traffic throughout the northern military Government territory, there was a marked improvement in road conditions during May, both as to foundations and surfacing. All main roads under first priority (military) were in hand, except for certain delays occasioned by local shortages of labour, or transport. The materials supply position improved somewhat, bricks and cement roads being fairly adequate, though not. A principal difficulty remained the shortage of bitumen. As to transport, reference is made in the first part of Part. I of the Sub-Commission's April report, where it was mentioned that 200 trucks would be put at our disposal by A.I. This has been a disappointment since the vehicles actually released proved to be of the class 3 type, and a large proportion of them were not capable even of moving under their own power. This kind of thing remains a severe handicap, and it is to be repeated once again that the problem will not be solved (a) until the Italians themselves take more energetic action in requisitioning vehicles, at any rate in their own territory; and (b) until the large assignment of engineering plant and transport vehicles arrives from the U.S.

Similarly, transport for our own officers remained inadequate, the officers being without vehicles, though their duties should carry them over hundreds of miles of inspection work almost every week. (Through meeting one of our officers specially to assist, the Civilian Civilian in fact put 20 civilian vehicles in May by requisitioning. This action or move happened in the absence of such assistance, though it should be wholly unnecessary). The total number of vehicles operated rose during May from five to eight, in the effort to make contractors independent of army supplies for road-making material.

In certain forward areas the "Cantonieri" houses and depots along the roads are still occupied by military personnel, and so are not available for their normal use. In other cases the buildings have been destroyed. Apart from this, however, definite progress was made towards getting the Cantonieri gangs of men back to work.

In advanced Naples, five buildings were under repair or reconstruction. All are expected to be completed during June, though there were delays due to lack of certain materials. Reports were furnished concerning structures such as the Oratorio di S. Salvatore, a refugee camp, conditions at St. Maria and others, and special inspections were made and reports submitted regarding the repair of Basilica III for an additional 1000 sq. ft. of earthquake accommodation. (The low figure was queried by the Sub-Commission, and it was later found that the figure should have been 15,000 sq. ft.) In view of the acute shortage of roofing materials of all types, the construction of new buildings in the time being almost out of the question; the suggestion was therefore made that use of the low, and wide roads towards under the hill near the docks should be used for storage purposes. The matter has a bearing on policy and on traffic problems, and a decision is awaited.

At the end of May, 107 contracts for roads, bridges and buildings were in hand, the number including 35 new ones let during the month. These 35 amounted in the aggregate to over 24,000,000 lire, and the total value of contracts let, as up to the end of May, amounted to almost exactly 250,000,000 lire.

6. Electrical Division. This remains under the control of Lt. Col. Lerner who has also taken over responsibility for most of the work formerly done by the Electrical Power Division (Major Col. Cooper). In addition that Division has, as already noted,

Similarly, transport for our officer personnel remains inadequate, the officers being without vehicles, though their duties should carry them over hundreds of miles or inspection work almost every week. (Through sending me of our officers specially to assist, the Civilian Civils in fact got 20 civilian vehicles in May by request. This civilian transport was in the absence of such assistance; though it should be clearly unnecessary). The total number of civilian operated cars during May form five to eight, in the effort to make contractors independent of any supplies for maintaining materials.

In certain forward areas the "Camouflaged" houses and depots along the roads are still occupied by military personnel, and so are not available for their normal use. In other cases the buildings have been destroyed. Apart from this, however, no real progress was made towards getting the Camouflaged areas of use back to work.

In unarmoured places, five buildings were under repair or reconstruction. All are expected to be completed during June, though there were delays due to lack of building materials. Reports were furnished concerning structures such as the Orinthe Bridge, Salt Warehouse, a refugee camp, conditions at El Yim Medina and others; and special inspections were made and reports submitted regarding the request of Region III for an additional 3000 sq.ft. of warehouse construction. (That figure was quoted by the Sub-Committee, and it was later found that the figure should have been 15,000 sq.ft.) In view of the acute shortage of building materials of all types, the construction of new buildings in for May was being almost out of the question; the suggestion was therefore made that one of the long and wide road tunnels under the hill near the dock should be used for storage purposes. The matter has a bearing on policy and on traffic problems, and a decision is awaited.

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6. Electrical Division. This remains under the control of Lt. Col. Lopez who has also taken over responsibility for most of the work formerly done by the Electrical power Mission (under Col. Gromden). In addition that officer has, as already noted, taken over responsibility for public utilities such as Gas, water and main drainage (Public Utilities). One officer with special electrical engineering qualifications was assigned to Region VIII and three to Rome City Sub-Region. One of the senior officers from the U.K. with specialized hydraulic experience was assigned to water works and main drainage projects, repairs or reconstruction, whilst another was allocated for work in connection with the supply and regulation of materials. Under the heading of control of electric power supplies, further meetings were held with officials of the Public Works Ministry regarding a more uniform application of the licence on electricity rationing. (Urgent need for this, and the completion of the carrying it, were not out fully in Para. 6 of the April report of this Sub-Committee. That paragraph should be perused, in order fully to appreciate the present position). The rationing has given very marked and on the whole satisfactory results, with a correspondingly saving in coal consumption at thermal power stations, and (even more important) conservation of the water held in storage at various high-level lakes and large-scale reservoirs that furnish power to the numerous hydro-electric stations.

Series conservation of every possible unit of electricity in the absence of the system, since the destruction of the enemy inflicts on power and transformer stations and power transmission lines, as he retreats northwards, may be insurmountable in its results. A complete set of graphs was prepared during May, some reflecting both the production and the consumption of electricity throughout Southern Italy. A copy was furnished to the Local Resources Board (Italy) Board Electrical Committee, and also to Army Chief Engineers and others interested in the matter. A set of the graphs has also been filed in the A.C.C. Library. Lt. Col. Langer represented the Sub-Commission on the Central Electrical Board and also the Local Resources Board. At various meetings of these, during May, particular satisfaction was expressed at the success of the rationing scheme initiated and supervised by the Sub-Commission, and also at the information concisely given in the graphs mentioned. At one meeting approval was given to power allocations for various areas of Southern Italy. The Central Electrical Board during the month assigned the re-installation at Matera, about 40 miles from Naples, to 11 Chief Engineer Corps, 8th Army of the large hydro-electric generating unit (recently dismantled and now being prepared for shipment) from Anagnino in Sicily, near Palermo. Shipment will take place about the 15 June. In its physical aspects the dismantling and shipment has proved to be a difficult operation, some parts of the plant being of great weight, apart from numerous electrical, hydraulic, and structural complications. Some time ago the C.C.B. Board asked the Sub-Commission to assume responsibility for the dismantling and transportation.

Lt. Col. Langer paid a visit to Sicily leaving several days in connection with the matter, and the officials have been fully occupied on it there for several weeks. They will return to Headquarters when the shipment moves to Naples.

Visiting members other matters dealt with at meetings of the Local Resources Board and the Central Electrical Board were the following:-

(a) Meetings of other electric power units, authorities were held separately in Nos. 2 and 3 Districts (Military) and there were also meetings particularly affecting 75, 94 and P.B.S. areas.

(b) In the Salerno-Torre Annunziata areas, in order to release power to industries dependent on the war effort, about 6000 KW of load to be disconnected.

(c) In the 75, 94 areas, the three sub-areas showed complete power-loading lists on which action can be taken for the disconnecting of selected transformer stations when the full extent of the emergency in Rome (or north thereof) becomes known.

(d) In addition, complete lists of feeder circuits have been prepared so that these can be disconnected in the event of a more grave emergency arising.

(e) Officers of the Sub-Commission have collaborated, and to a large extent controlled this power conservation so far as it has gone up to the present; and with the proviso that still more drastic steps can be taken at any moment, if required.

(f) Both the Local Resources Board (Italy) and the Chief Engineer No. 3 District have expressed their particular satisfaction with the way the A.C.C. representatives have acted, and they consider the matter to be good. Apart from the shipment of the large hydro-electric plant from Sicily, and its re-installation at Matera the most important other active electrical project at the moment in the transmission line to Rome, starting at a point near Minturno, north of the River Garigliano. (This was referred to on Page 7 of the April Report, and also Page 2 of the March

15 June. In the physical aspects this is a matter of the shipyard has moved to a different location, and the parts of the plant being of great weight, apart from numerous electrical, hydraulic, and structural installations. Some time ago the C.I. Board asked this Sub-Commission to make recommendations for the installation and transmission.

16. Col. Ingvar said a visit to Sicily lasting several days in connection with the matter, and the officers have been fully occupied on it there for several weeks. They will return to Rome quarters when the shipment moves to Naples.

Miscellaneous other matters dealt with at meetings of the Local Resources Board and the Central Electrical Board were the following:-

(a) Meetings of other electric power-using authorities were held separately in Nos. 2 and 3 Districts (Military) and there were also meetings particularly affecting 75, 91, and P.B.S. areas.

(b) In the Belmonte-Torre Annunziata areas, in order to reduce power to industries necessitated in the war effort, about 6800 KW of load is to be disconnected.

(c) In 80-88 areas, the three sub-areas showed complete power-loading limits on which action can be taken for the allotment of selected transformer stations when the full extent of the emergency in Rome (or North thereof) becomes known.

(d) In addition, complete lists of feeder supplies have been prepared so that these can be discontinued in the event of a more grave emergency arising.

(e) Officers of the Sub-Commission have collaborated, and to a large extent controlled, this power conservation so far as it has gone up to the present; and with the proviso that still more drastic steps can be taken at any moment, if required.

(f) Both the Local Resources Board (Italian) and the Chief Engineer Mr. J. Distasio have expressed their particular satisfaction with the way the A.C.C. representatives have acted, and they consider the results to be good. Apart from the shipment of the large hydro-electric plant from Sicily and its re-installation at Matera the most important other active disorganised project at the moment is the transmission line to Rome, starting at a point near Minturno, north of the River Garigliano. (This was referred to on Page 7 of the April report, and also Page 2 of the March report). A large materials-lump was established at a point between Naples and Minturno, and with the advance of the armies the actual rebuilding of the line was begun during the last week in May. It will be pushed through with all possible speed, an American Engineer unit being reinforced by over 300 civilian workmen. Large numbers of land mines are being found along the route, and within the first few days several casualties occurred. The Sub-Commission has had an officer on this work for some time, and may have to take over complete control at any moment. Large stocks of materials had to be requisitioned, arrangements for packing, payment and loading of the workmen, and other things have had to be planned and prepared by this Sub-Commission.

(b) The following rate adjustments were allowed to various Public Utility

Companies	Electricity Companies	Date	Temporary Surcharge	Remarks
No. 1	Societa Meridionale di Elettricit�	16 May	50%	Wholesale rates to municipalities reduced to previous level.
No. 2	Societa Generale Pubblica di Elettricit�	16 May	25%	
No. 3	Societa Elettrica della Campania	15 May	50%	
No. 4	Societa Lucana per Imprese Idroelettriche	16 May	20%	
No. 5	Societa Elettrica della Calabria	16 May	10%	
No. 6	Genaro and Recco Fallante, Campobasso	29 May	100%	
No. 7	Azienda Elet. Grogneto	16 May	60%	
No. 8	Societa del Cilento	28 May	100%	Through Italian Govt.
	Water Companies			
No. 1	Torre Annunziata	23 May	300%	
No. 2	Vesuviana	17 May	150%	
No. 3	Pozzuoli	17 May	200%	
No. 4	Naples	30 May	200%	(150% only on bulk supplies)
	Gas Companies			
No. 1	Naples	29 May	300%	

These surcharges are subject to review on 1st next quarterly statement. The surcharges allowed take into account the surcharges for plant and

No.	Company Name	Date	Rate	Remarks
No. 1	Societa' Meridionale di Elettricità	16 May	25%	Subsidies rates to subsidiaries reduced to previous level.
No. 2	Societa' Centrale Padovana di Elettricità	16 May	15%	
No. 3	Societa' Distrettuale della Campania	15 May	60%	
No. 4	Societa' Lucana per Ingegneria Industriale	16 May	20%	
No. 5	Societa' Elettrica della Calabria	16 May	10%	
No. 6	Consorzio per l'Energia Elettrica, Carbonifera	25 May	100%	
No. 7	Consorzio Elet. Graviano	16 May	60%	
No. 8	Societa' del Cilento	28 May	100%	Through Italian Govt.
<u>Water Companies.</u>				
No. 1	Torre Annunziata	25 May	300%	
No. 2	Vesuviana	17 May	150%	
No. 3	Portici	17 May	200%	
No. 4	Naples	30 May	200%	(250% only on bulk supplies)
<u>Gas Companies.</u>				
No. 1	Naples	29 May	500%	

NOTE: These surcharges are subject to review on the next quarterly statements, covering actual running expenses only; the surcharges allowed take no provision for remuneration of capital, sinking funds, allowances for plant and machinery depreciation etc.

1. Unconcluded Report.Region 1. (Sicily)

Dry weather has enabled more rapid progress to be made on roads, bridges and buildings. Efforts were concentrated on the two former, particularly required by the Chief Engineer No. 1 District (Military). The complete list consisted of about 200 separate works, of which 70 were bridges. Total estimated expenditure 250,000,000 lire. Arrangements were finally concluded last January; by the end of May many works had been completed, and out of the whole 200 only four remained to be started. About 90% of the schemes were on State roads. Captain (now Major) W.H. Gamble arrived at Palermo on 13 May and proceeded to Catania a day or two afterwards for this work, having been specially sent there to assist, from this Headquarters.

Numerous other works are in hand through Italian agency, such as demolition of dangerous buildings in the bombed cities, removing debris, repairs to aqueducts, main drainage systems, public buildings, harbours, some work on lighthouses, and others for the accommodation of refugees. There was trouble during the month about the Genio Civile starting a number of projects without approval, on the basis that if they cost less than 200,000 lire each they could be so started. The number of these reached undue proportions, however, and remedial steps were taken. This, coupled with other measures, should have a stabilizing effect on public works expenditure in the Island, and should also assist in getting constructional material used to the best advantage.

(1) Messina. Work on this severely wrecked city has proceeded more slowly than usual owing to a disinclination on the part of labourers to work more than the normal hours even in the summer. Special transport had to be sent out to villages in order to get more men, taking back to the villages again every evening. The Regional Engineer on the 16 May visited ten schemes in hand, and they were all under-staffed as to workmen.

Considerable pressure was applied in May to have a roof put on the Messina Cathedral, and to get an estimate of 8,000,000 lire approved. The Prefect of the Province argued that to start work on this building would have a "great psychological effect" on the people. A second alleged reason was that if the building were re-roofed, the Archbishop could celebrate his 50th year of office, in the Cathedral next September. The Italian authorities have since been reminded of three things: that the proposed roof would protect no part of the interior, nor any work of art, since these were all

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A letter has been sent from this Headquarters rejecting the proposal.

222

(ii) It is stated that Messina is "looking much better than it did a few months ago". There is still a great deal to do, but repairs and reconstruction are organized in such a way that notable progress should be evident by the end of August. (This has no reference to the very large number of completely destroyed buildings, the gas works, and other similar things.)

(iii) Catania. This city was damaged to an infinitely smaller extent than Messina. It is the Headquarters of No. 1 District (Military) and all requirements of the Chief Engineer are formulated there. Major Gamble is now on the spot to assist, instead of the former cumbersome procedure under which all military demands had to be sent to the Regional Engineers Office at Palermo. There is talk of the re-starting of a part of the cement works at Catania, in which the Provincial Commissioner is interested. Details were sent to him of a practicable method for the use of the inferior Sardinian coal, in cement manufacture. There is also a wish to operate a part of the gas works, but the probability of this seems remote under present conditions, viz. lack of replacement plant, and coal-supply difficulties.

(iv) Syracuse. Some public buildings are still under repair. A request from the Naval Officer in the neighbouring port of Augusta for demolition of certain dangerous buildings was examined, and an estimate of cost formulated.

Materials. Cement works near Palermo, capable of producing 3000 tons a month had to be closed down, since the nature of the reverts made it possible to use in them only anthracite coal. Sardinian coal proved to be valueless. With the provisional starting up of the gas works in Palermo, however, the Regional Engineer carried out experiments in order to reduce the volatile content of Sardinian coal from 40 to about 12%, thus rendering this coal suitable for cement production. The cement works can therefore be reopened.

Transport. This still remains a difficult problem since through rail transport on the island does not exist and there is a shortage of lorries. Italian engineers of the supervising staff cannot get out to see that works are progressing because their private cars are (with continued use and no spare parts) becoming more and more unreliable.

Electricity. There are 14 power-plants in the island, 11 of these being hydro-electric and the other three operated by steam power. Of the three latter, Palermo and Catania had fair stocks of both imported and Sardinian coal in hand at the end of May. The possible amount of Sardinian coal is being utilized. Requi

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Improvised repairs were carried out at the Palermo plant, involving much electric welding. Twelve sections of a transmission line near Porto Empedocle were destroyed due to a recent ammunition dump explosion near Agrigento.

A threatened strike amongst electrical workers in both eastern and western Sicily was averted, at least temporarily. The Società Generale Elettrica della Sicilia, the owners of the hydro-electrical plant now under removal to Italy by this Sub-Commission, have collaborated completely in the project. The main unit under removal is capable of a 3500 KVA output. Transport from the site to the port of Palermo has been afforded by the Island Base Section (Ordnance Service), whose personnel has also most actively assisted.

A notable improvement in the amenities of Palermo was the starting-up of the gas works in the middle of May, after a very long period. The operational period is only 7 hours out of 24 and the use of the gas is limited strictly to cooking purposes. The distribution system (mains) was considerably damaged, but repairs are in hand to the extent that in the very near future practically all parts of the city will have at any rate a limited service.

8. Region II.

This Region was without a Public Works officer up to very recently. A short report from the officer who took charge temporarily (Lt. Butcher), covering the month of May, concerns mainly the electrical position with which he was particularly concerned. Major Knight has, within the last few days, been appointed as Regional Engineer and future reports will, it is hoped, be more comprehensive. The roads and bridges position in the Region has been covered by information already given. Additionally, the Regional Commissioner (Monthly Conference 30 May, at Naples) said: "Much improvement in road and bridge repair, and in the organization of the Italians in this Region". Also, "Plans now being made for reduction in consumption of electric power when, and if, it becomes necessary". There is little detail on Public Utilities generally, nor about buildings, but a subsidiary aqueduct is being constructed in the Taranto area, necessary to supplement the water supply to the town and port. Headquarters No. 2 District (Military) are specially interested, and the work is to be completed in June.

9. Region III.

The electricity situation in Region III is not in a critical position at present, but this by no means indicates that there is sufficient for all purposes. During May 428 applications were received for continued service (under the rationing system), of which 127 were rejected and 97 were sent to various Sub-Commission asking for their views, in support or otherwise.

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The Regional Engineer considers that rationing of over **220** must be continued for various reasons, e.g. there will be further requests for power purposes from small flour mills and food plants in the next few months, which must be satisfied; there will be more requests for reconnection of supplies in the recently occupied territory north of Naples, whilst there will be no increase in generating capacity; reserves must be kept in hand for certain factories now operating, and which may attain a much larger production within the next three months; a limited tramway service in and around the city of Naples is under contemplation. Many small power users in the Salerno - Torre Annunziata - Castellammare area had to be disconnected, only those with a high priority being

reconnected on special application. This has enabled an ample quantity of electricity to be available for the operation of certain steel-mills, in production for the Armed Forces in Terra Annunziata and Castellammare.

For the clearing of rubble and debris in Naples City, including ordinary street clearance, the number of trucks available has never exceeded 24. These were got from a pool of trucks numbering 200. In May 160 of these were sent to forward areas with the result that the 24 available for this vitally important work (bound up closely with both amenities and public health) had to be reduced to four. The Prefect was pressed to get an additional 15 trucks but these were mostly in bad repair, and cannot be in service for some time.

At the moment the work is seriously crippled. Repairing of the Riviera di Chiaia was started, divided up into three separate sections; extremely heavy traffic to and from the port has in the past made it almost impossible to keep this road in condition. A gap at the top of the Via Posillipo was filled in with rubble to allow traffic to get across, as a temporary expedient. Tramway service repairs, with a view to partial operation soon, is generally in hand, in some cases with bridge gaps also filled in with bricks and rubble, in lieu of either a temporary or permanent bridge.

Reference was made in last month's report to special work being done on the main-drainage system of Naples City (sewers). ~~At~~ March a vigorous cleansing campaign was started since many of the sewers were blocked, the water line was rising, and certain low-lying areas were being flooded. This would have caused a serious mosquito and malarial problem had it been allowed to continue. The cleansing was done by putting to work double shifts of men, and by the end of May it was practically finished. There is no danger of the areas being again flooded. Outside the city, in the Provinces, work on bridges and roads of a secondary character are being regularly done, but progress is slow since materials supplies are getting more and more critical.

The subsidiary water supply towards Pozzuoli, mentioned in the April report, was completed (as to main-laying) in 15 days. This was brought about by almost hour to hour close supervision by the Regional Engineer's staff. They also obtained cement, through the effort of this Sub-Commission which was used for rebuilding one of the high-level water reservoirs serving the City, a project that had been delayed for weeks owing to lack of this material.

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Production of gas at the main works is rapidly improving, wrecked buildings being restored and plants being repaired, even though in a semi-improved manner. On the 15 May a supply of gas to considerably extended portions of the City was given. Both the public and members of the Services were given thorough warning in advance, in the press and in Orders, about the danger inherent in starting these new areas through the presence of explosive mixtures of air and gas, which might be carried into the houses. The publicity was effective, and in the whole of the 15 additional areas no accidents were reported. About 2 Kms. of pipe-line were obtained from P.E.S. by the Regional Engineer, and this has been used by

The Company for the repair of places badly damaged by mine and bombing. The gasworks received a stock of 700 tons of Sardinian coal in May. It is of inferior grade but a small proportion can be used, if mixed with gas-coal. Approval of a temporary surcharge not exceeding 500% was given to the Gas Company, this being related very largely to the extremely high price of imported coal (The Regional report contains information about transport and tele-communications; these matters meet with other Sub-Commissions and will no doubt be reported on by them).

10. Region IV

The whole of Region IV remained during May under A.I.C. 07. Arrived. From about the middle of April, Col. M. Edwards, P.M. (Regional Engineer) was with advanced Region IV Headquarters in order to be in close touch with Army Headquarters, and to undertake inspection trips of such portions of Region IV as were accessible. Under transport demands, 11 trucks were provided by the last June; 11 Italian drivers were understood also to be forthcoming; but there are complaints that no arrangements had been made for relations, discipline, and other administrative matters, and no Italian NCO's officers in charge. The Regional Engineer reports that a considerable amount of draftsmen's work was completed in his drawing office on technical plans, maps and organizational charts. A shortage of office personnel was reported, one P.M. only being available for the work and records concerning 14 officers; this figure included the separate engineering personnel for Home Sub-Region, which moved during the month to a concentration area. Your Engineer Officers allocated to the Region (by this Sub-Commission) reported for duty, viz. Lt. Col. Brown (A), Major Rivelly (A), Major Evans (B) and Lt. West-Brown (B).

The position being serious in Littoria Province (Punitive Measures) two specialists Italian in nature of the P.M. Civilia left Naples on 29 May to organize air so labour, contractors, or any other agency at their command. Latest reports indicated a slight lowering of the flooded-water level, with one of the large land drainage pumps back in operation.

(Note: A request for these engineers, with previous experience of the measures was received by this Sub-Commission on 27 May. Arrangements were immediately made with the Director General, Genio Civile; the men were selected, arrived at Naples from another place on 29 May, and reported at this Sub-Commission's office. Two hours later they left for Littoria, provided with transport, necessary documents, etc.).

In Littoria Province five water supply undertakings had been inspected by the end of the month; all were found to be damaged and out of action, viz. pumps and other mechanical plant, dequoducts and so on.

The engineering activities of Region IV were closely coordinated with those of A.I.C. 5th Army, through Capt. Gaitner.

his engineering office on technical plans, maps and organizational charts. A shortage of office personnel was reported, and E/A only being available for the work was records concerning 14 officers; this figure included the separate engineering personnel for Roma Sub-Region, which moved during the month to a concentration area. Four engineer officers allocated to the Region (by this Sub-Commission) reported for duty, viz. Lt. Col. Breta (A), Major Wively (A), Major Evans (B) and Lt. Wess-Brown (B).

The position being serious in Littoria Province (Pontine Marshes) two specialist Italian SS members of the Benito Civile left Naples on 29 May to organize direct labour, contractors, or any other agency at their command. Latest reports indicated a slight lowering of the flooded-water level, with one of the large land drainage pumps back in operation.

(Note: A request for these engineers, with previous experience of the marshes was received by this Sub-Commission on 27 May.

Arrangements were immediately made with the Director General, Benito Civile; the men were selected, arrived at Naples from another place on 28 May, and reported at this Sub-Commission's offices. Two hours later they left for Littoria, provided with transport, necessary documents, etc.).

In Littoria Province five water supply undertakings had been inspected by the end of the month; all were found to be damaged and out of action, viz. pumps and other mechanical plant, aqueducts and so on.

The engineering activities of Region IV were loosely coordinated with those of A.I.C. 5th Army, through Capt. Gairner.

11. Region V.

Major C.A. Latimer (A) is the Regional Engineer. His staff during May was mainly engaged on Pontine matters, and in furtherance of items of work mentioned in the last report. A survey of the water supply system of Terracina was made, which showed that earlier difficulties had been overcome and the town has now a reasonable supply of water. The water position at Capignone town is fairly satisfactory but requires constant attention. Military needs in certain parts of the supply area have caused shortages of water in other parts. Part of the distribution system is gravitational and the other part by pumping. The latter system is being extended.

217

A survey of roads of secondary importance was started in order to determine the possibility of constructing temporary bridges, or other diversions, as a stop-gap arrangement. Long long detours are now necessary in certain parts of the Province, causing wastage of transport, time, and increased petrol-consumption. Arrangements were made with the Royal Army Ordnance Corps and with A.S.I.E. for spares and repairs of vehicles. Separate reports were made to the Transportation Sub-Commission on the possibility of re-opening the Capobasso-Torolli Railway. Electricity supply is satisfactory. Repairs to hydro-electric plant at Decosmo were expected to be completed by 7 June, producing an additional 185 kVA. A further 150 kVA will be available by the end of June when replacements of certain electrical equipment at Torolli are installed. Additional power transmission lines are under repair. Power plant progress, generally, indicates that in the course the fiferac group of stations will be providing current in excess of local needs and when this is achieved power can be exported northward along the UNES system, by the Adriatic coast. A building in Capobasso was practically completed, ready to be handed to the Economic and Supply Division, and a workshop was put in operation.

Power demand for a paper manufacturer, when the mill is reopened, will be so substantial that it was decided to put the matter before the Naples Committee as a special case. Power supply to a much-needed paste plant near Capobasso was improved by the installation of a new transformer. Technical reports were furnished to Economics and Supply, to Agriculture, and to the Mines Division concerning grain storage facilities, a manganese mine, and other things.

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12. Region VI.

The April report of this Sub-Commission mentioned heavy war damage in the City of Cagliari, and that the clearance of this and the minimizing of its inherent dangers would be a principal task of the Public Works staff there. Little or nothing had been done by the Italians, and even as recently as the 26 February last, only 5% of the work had been done. The latest report, given in fortnightly periods, is up to the 20 May. It shows that in the three months from February to May the 5% figure had been raised to 22%. The city has been systematically divided into six areas, and the whole program put on a basis of priorities, i.e. dealing with the more important parts of the City first. By the 1st May all main roads were cleared of obstructions. Work is handicapped not only by lack of transport, (unrecoverable) but also by a reported insufficient number of laborers (not understandable). Further, and much more, serious, reference is made to the "insufficient support of organized effort by higher officials" (Italians). This matter is being taken up by the Sub-Commission at once. A limited runway system in Cagliari has been put in operation. The water supply of the City is now safeguarded by chlorination. Road maintenance throughout the island by the Genio Civile continues to be good, but on ordinary water-bound macadam roads, which are in the great majority, rollers and water carts cannot be provided for consolidation. This causes heavy increased wear on tyres. Such asphalt as is available has been devoted to airfield construction in the north of the island. An indent has been submitted for the supply of 500 tons more. It is reported that some provincial and communal roads are being neglected due to lack of equipment and proper organization, on the Italian side. A technical report was made on a distillation plant at San Artico where Sardinian coal is used. The plant handles about 40,000 tons of this coal per annum. Gasoline of a low grade is produced, and about 300 tons of tar a year that is useful for road construction.

13. Finance.

(a) By the early part of May P.D.S. (Engineering Branch) had submitted details to this Sub-Commission of expenditure on repairs, debris clearance, structures, and engineering projects generally, dating from October 1943. The Deputy-Director of Works (Mr.) had also submitted particulars of similar expenditure, covering materials and transport supplies during the months of February and March, in connection with Military Highways and Bridges. This amounted to between L. 30,000 and L. 35,000 (pounds). It was suggested that these debts should be raised against the Italian

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(b) Certain practical difficulties arose during the month regarding prompt payment of contractors' bills, the Finance

215

Ministry having failed to give necessary credit to certain bonds at Naples, Reggio and Cassella. Since this ill-timed against the rapid execution of urgent work representations were made, and the Finance Sub-Commission directed the Finance Ministry to extend and simplify their methods of payment.

(c) Similarly, on this Sub-Commission informing the Finance Sub-Commission that a relatively complete, and it is believed reasonably efficient, control is being exercised over Public Works expenditure generally the Minister of Finance (Italian Government) was asked by them to relax strict and specific financial control over each and every project. This should lead to greater expedition in execution.

(d) Reference was made (Para 12 (a) of the April report of this Sub-Commission) to the serious situation arising from the eruption of Vesuvius in March. Prospective expenditure was not at 170,000,000 lire. The Deputy-Director (Lt. Col. Rhodes) made a preliminary inspection of the mountain, the ravines, and the position in the villages at the foot of the northern slopes. The conclusion was arrived at that much of the work is urgent and cannot be postponed, but he expressed the opinion that the estimate mentioned was a "startlingly high one". Later, in May, the Italian Finance Ministry apparently also became seriously concerned at the figures put forward by the Genio Civile, and took the matter up with the Finance Sub-Commission. Consulting us, they were furnished with a copy of the technical report (dated the 4th May). In the result it is understood that they have advised the Finance Ministry to withhold sanction to the expenditure until the matter is much more fully investigated, in its engineering and policy aspects. The matter has been discussed, in the meantime, on several occasions with the Director-General (Genio Civile) or his Deputy, and they now clearly understand that the various projects cannot proceed until the most urgently required parts of the scheme, at any rate, are supported by proper plans, sections and estimates.

14 Information to Missions.

During the month such information as they required was given to Lt. Col. Patrick (of the War Office, London), and to Lt. Col. McMillan (Army H.Q., Cairo). These officers, respectively, spent a considerable time at the offices of the Sub-Commission and were given access to all files and records, answers were given to numerous questions.

expedition in execution.

(3) Reference was made (Para 12 (b) of the April report of the Sub-Commission) to the serious situation arising from the disruption of Yomvina in March. Prospective expenditure was put at 370,000,000 lire. The Deputy-Director (Lt. Col. Rhodes) made a preliminary inspection of the country, the rivers, and the condition in the villages at the foot of the northern slopes. The conclusion was arrived at that each of the four is urgent and cannot be postponed, but he expressed the opinion that the estimates mentioned was a "startlingly high one". Later, in May, the Italian Finance Ministry a personally also became seriously concerned at the figures put forward by the Genio Civile, and took the matter up with the Finance Sub-Commission. Consulting us, they were furnished with a copy of the technical report (dated 10th May). In the result it is understood that they have advised the Finance Ministry to withhold sanction to the expenditure until the matter is much more fully investigated, in its engineering and policy aspects. The matter has been discussed, in the meantime, on three occasions with the Director-General (Genio Civile) or his Deputy, and they now clearly understand that the various projects cannot proceed until the most urgently required parts of the scheme, at any rate, are supported by proper plans, sections and estimates.

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15 Miscellaneous Letters.

(a) Information received since the last monthly report (April 214 too late to be included in it), stated that in areas of the 8th Army, no less than 15,500 men were employed on roads and bridges, and they were paid over 2 1/2 million lire in wages. The great volume of traffic was causing a steady deterioration in road conditions; first-aid repairs occupied all the hours, but they could not keep pace with the wear and tear inflicted. 8th Army A.I.G. also reported that the destruction of the Pescara Dam by the Allied air forces, an operational necessity, might have serious repercussions later on the electric-power system on that side of the mainland; particularly in view of the considerable time that will be required to rebuild it. In the 5th Army A.I.G. areas there

(1) There was contact with the Air Force Sub-Commission concerning highways north of Rome, and particularly as to bridges (vulnerability). Various supplies were obtained at short notice for A.I.G. In the forward area, A.I.G. several thousand manholes for the clearing of villages.

(2) The Sub-Commission has a well-equipped drawing office for plans and designs, with Italian personnel. During the month it was fully occupied in plans, designs and charts for various branches of our own activities, and also did work specially asked for by the Interior Sub-Commission on certain charts.

A. J. Jerny
A. J. JERNY
Lt.-Col., A.I.G.
Director.

1400

Declassified E.O. 12356 Section 3.3/NND No. 785019

213

H.A. JERRY
H.A. JERRY
Lt. Col., O.D.
Director.

**MEMORANDUM
ALFRED CORNELIUS COMMISSION
Public Works and Utilities Sub-Commission
JPO 594**

SUMMARY OF ACTIVITIES DURING JULY 1944

10 August 1944

1. REORGANIZATION. (Events)

(a). The June report of this Sub-Commission, para. 1 (sub-para. 1 to 7), set out in detail the complete reorganization of its Engineering Staff and their respective responsibilities. Reasons were given for the more or less separate and independent organizations for the carrying out of engineering work that had been set up at the end of 1943 and in the early part of 1944, together with reasons why unification and integration of all activities could be better carried out under a senior engineer officer in each region, designated the Regional Engineer. The change came into operation on the 15th June, and the month of July served to demonstrate its advantages. In particular, distinction in the detailed work that had to be dealt with at R.C. in previous months (often by senior officers) has been marked. More frequent tours of inspection on the part of the four senior officers at R.C. should be possible but up to the end of July, at any rate, such tours were exceedingly difficult to arrange. During a part of the month, the Deputy-Director of the Sub-Commission (Lt. Col. G. E. Rhodes, R.E.) was absent from duty through illness; secondly, there was transfer of the office to a new location (Naples to Rome); and, thirdly, many immediate and pressing problems in Rome and its vicinity presented themselves.

The new Minister of Public Works appointed in June, Sig. Mancini, kept in close touch with the Director, and the mild comments and criticisms made about him in the June report (para. 2) may perhaps now be modified to some extent, since a better knowledge of the working of his own Department has certainly resulted in quicker and more appropriate action by him in specified directions. There is now no intention to establish the "Superior Technical Council" there mentioned, and neither is there any intention to alter the status and position of Sig. Milano, the present Director General. He has also sent out some useful and strong directives to his Staff.

(b) Personnel.

Para. 2 of this report gives lists of officers as on 31 July 1944, together with comments indicating transfers or alterations contemplated. Portion A shows the R.C. list, whilst portion B gives the Regional lists. The numbers shown are 17 and 43 respectively, giving a total of 60 at the end of the month. The total establishment should be 74. Personnel and staffing questions have taken up an increasingly large amount of time, due not only to the rapid moves of the armies (advanced planning of new regions) but also to major changes in policy (laid down by higher authority).

The re-posting of officers from Southern Regions to field areas in the North is sometimes made more difficult by the fact that as soon as news of the change is received, there may be a protest from higher ranking officers on the spot. To take only 3 examples of this: (1) Capt. Feldman, transfer from Region III; (2) Lt. Butcher, transfer from Region IV; (3) Lt. Butcher, transfer from Region V.

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The re-posting of officers from Southern Regions to field areas in the North is sometimes made more difficult by the fact that as soon as news of the change is received, there may be a protest from higher ranking officers on the spot. To take only 3 examples of this: (1) Capt. Feldevin, transfer from Region III; protest from the Chief Engineer (Armies) of No. 3 District C.M.F. (2) Lt. Butcher, from Region IV; protest from Regional Commissioner, (3) Major Spurr, from Region VI; protest from Regional Commissioner. (4) Maj. Grewther from Region I; protest from Regional Commissioner.

In the case of Region VI, in fact, the only other Public Works officer had been posted to other and quite different duties without consultation with the Sub-Commission some time previously, and he was not immediately available there, to take Major Spurr's place.

(c) In short, compliance with the dictates of an ever-changing policy, administrative and geographical changes in the Regions, and the demands of the forward

1. Northern Regions The Executive Public Works staff advising in matters has consti-
tuted, and still does constitute, an almost insuperable problem. The number of origi-
near officers available was barely sufficient to cover the Southern part of Italy
and the Islands even a few months ago. More perusal of these monthly reports (in
sequence) proves to demonstrate that in this short time duties devolving on the Sub-
Commission, as a whole, have increased by probably 100%. The only possible allo-
cation or solution would appear to be realignment of the Southern Regions, as
indeed is now contemplated, handing over to Italian agency a largely increased mea-
sure of responsibility engineering and technical (with which is also closely asso-
ciated financial responsibility), and by leaving to the few Public Works officers
still remaining a diminishing responsibility for what is going on, viz., in propor-
tion to the greatly extended areas they will have to cover, albeit in a mainly ad-
visory and supervisory capacity. In some parts of Italy, borrowing a nautical phrase,
the crew must cease to run the ship, and they must be reduced to a mere "crew and
maintenance party."

(d) The demand for additional officers for the forward areas is insistent and
continuous. On 28 June, for example, the Executive Commissioner (Brigadier) on re-
turning from a visit to the 5th and 13th Armies and Region VIII, wrote to the effect
that there is a "universal demand for the immediate despatch of electrical engineers
to Numbers 5 and 8, in order to re-establish hydro-electric systems."

2. Nautical Roll of Officers.

(1) At Headquarters, and on temporary duty elsewhere:-

Lt. Col. L. A. Jemmy, C.E.
Lt. Col. G. E. Rhodes, R.E.

(A) Director, Sub-Commission
(B) Deputy Director, Sub-Commission

Public Works Division.

Lt. Col. V. S. Thompson, R.C.E.
1st Lt. R. W. Shepherd
Major N. W. Wyland
Major C. L. Harrie

(B) Chief, Public Works Div.
(A) Asst. to Chief P.W. Div.
(A) P.W.O. South.
(A) P.W.O. North.

Utilities & Adm. Div.

Lt. Col. W. N. Lapper
Capt. L. W. Laughlin
Major H. N. Westwood
Capt. A. E. Proady
Major V. O. Wooster
Major E. J. Derry
Major V. S. Ronten
Capt. R. J. Gordon
Capt. R. A. Ryan
Major R. E. Larson
Major R. I. Bell

(B) Chief, Utilities & Adm. Div.
(A) Asst. to Chief, Util. & Adm. Div.
(B) Headquarters.
(B) Headquarters.
(A) Elec. Util. O. Operations.
(A) " " " Generation.
(A) " " " Transmission.
(A) T/D Region IV.
(A) Elect. Util. Officer. South
(A) T/D Region IV
(A) Elect. Util. Officer

(2) On present information and subject to correction the following Public Works
Officers are permanently assigned to Regions as shown:

Region I. Lt. Col. G. P. Polick

(A) Regional Engineer Officer.
(B) Public Works Officer.

2. Nominal Roll of Officers.

(A) At Headquarters, and on temporary duty elsewhere:-

Lt. Col. L. A. Jany, C.E.
 Lt. Col. S. E. Hines, C.E.

Public Works Division.

Lt. Col. V. B. Thompson, E.C.E.
 1st Lt. R. W. Sheppard
 Major H. W. Hyland
 Major C. L. Radio

Utilities & Adm. Div.

Lt. Col. W. M. Lapper
 Capt. L. W. Laughlin
 Major H. W. Westwood
 Capt. A. B. Freedy
 Major H. O. Wooster
 Major E. J. Darty
 Major V. S. Benton
 Capt. M. J. Benson
 Capt. R. A. Ryan
 Major H. Larson
 Major R. A. Bell

(B) Chief, Public Works Div.
 Asst. to Chief P.W. Div.
 P.W.O. South.
 P.W.O. North.

(B) Chief, Utilities & Adm. Div.
 Asst. to Chief, Util. & Adm. Div.
 Headquarters.
 Headquarters.
 Elec. Util. O. Operations.
 " " " Generation.
 " " " Transmission.
 S/D Region IV.
 Elect. Util. Officer, South
 S/D Region IV
 Elect. Util. Officer

(B) On present information and subject to correction the following Public Works Officers are permanently assigned to Regions as shown:

Region I.

Lt. Col. C. P. Bolick
 Major D. A. Boyd
 Major L. Crowther
 Major W. H. Gamble

Region II.

Major W. Knight
 Lt. J. V. L. Fletcher
 Lt. V. M. H. Stephens

(A) Regional Engineer Officer.
 (B) Public Works Officer.
 (B) Elec. Util. Officer.
 (B) Highways.

(B) Regional Engineer Officer.
 (B) Elec. Util. Officer
 (B) S/D Highways.

Region III.

Lt. Col. L. A. Bouslog
Major L. B. Bouslog
Capt. R. P. Resner
Capt. R. M. J. Hubbard
Capt. E. B. Folman
Capt. A. G. A. Sand
1st Lt. R. A. Shrolla

(A) Regional Engineer Officer,
Public Works Officer,
Highways,
Highways,
Highways,
Highways,
Highways,
Elec. Util. Officer.

Region IV.

Col. E. J. Edwards
Lt. Col. L. de C. R. Lindley
Major A. G. Evans
Capt. T. E. Springs
Capt. J. S. C. Wilson

(B) Regional Engineer Officer,
Public Works Officer,
Public Works Officer,
Public Works Officer.

Yeathooto
Lt. Col. J. E. E. E. E.
Capt. P. D. E. E.
Major A. G. E. E.
Capt. T. E. E. E.
Capt. W. R. E. E.

(B) Public Works Officer,
Elect. Util. Officer,
Elect. Util. Officer,
Highways,
Highways,
Highways.

Region V.

Lt. Col. C. R. Birchett
Major A. E. Michel
Major G. P. Buckley
Major J. G. Rively
Lt. E. P. Wade-Brown

(A) Engineer Officer,
Public Works Officer,
Public Works Officer,
Public Works Officer,
Elect. Util. Officer.

Region VI.

Lt. Col. C. A. Latimer
Major J. E. E. E.
1st Lt. J. K. Walsh
Major J. S. Bennett
Major G. E. E. E.
Capt. J. L. Lambie
Capt. R. M. Walker

(A) Regional Engineer Officer,
Public Works Officer,
Public Works Officer,
Elect. Util. Officer,
Highways,
Highways & Canals & E. E.
Highways.

Region VII.

Capt. E. E. Smith

(A) Public Works Officer.

Region VIII.

Major W. E. Chamberlain

(A) Regional Engineer Officer.

Region IX.

Major P. S. D. Lee
Capt. P. R. C. Stephens
Lt. L. J. Hodges

(B) Regional Engineer Officer,
Elect. Util. Officer,
P. W. Officer.

Region X.

Major M. M. Spann
Capt. E. E. Rogers

(A) Regional Engineer Officer,
Elect. Util. Officer.

Remarks:

- (a) Capt. D. M. Geithner
(b) Major M. M. Spann
(c) Lt. C. W. A. A. A.
(d) Capt. W. R. Gentry
(e) Capt. E. E. Rogers
(f) Lt. P. M. H. Stephens

Assigned to A.M.G. 5th Army.
Assigned to Region IX as Regional Eng.
Assigned to Staff Economic Sect.
Assigned to Region IV as Highways Officer.
Assigned to Region IX as Elec. Util. Officer.
Assigned to H.Q.A.C. Public Works & Util.
and placed on temporary duty Region II as
Highways Officer.

Major A. W. Barry
Capt. F. H. Bromfield
Capt. W. H. Conary

Pono Region. Lt. Col. C. R. Blomatt
Major A. E. Michel
Major G. B. Rackley
Major J. C. Rively
Lt. E. P. Hays-Brown

(A)	Engineer Officer.
(A)	Public Works Officer.
(B)	Public Works Officer.
(A)	Public Works Officer.
(B)	Elect. Util. Officer.

Region V.

Lt. Col. C. A. Latimer
Major J. E. Foden
1st Lt. J. H. Walsh
Major J. B. Bennett
Major G. Baughen
Capt. J. L. Lambie
Capt. R. H. Walor

(A)	Regional Engineer Officer,
(B)	Public Works Officer,
(A)	Public Works Officer,
(E)	Elect. Util. Officer,
(B)	Highways,
(B)	Foggia & Campobasso Prov.,
(B)	Highways,

Region VI. Cast. N. H. 211. 211. 211.

(2) **Public Works District.**

Region VII. Major W. F. Chamberlin.

(A) National Endocrine Officer.

Section VIII. Major P. S. L. Lee
Capt. P. S. C. Stephens
Lt. L. J. Hodges

(a) Regional Engineer Officer,
(b) Elect. Util. Officer,
(c) P. W. Officer.

Region IX.
Major R. H. Sparr
Capt. W. H. Rogers

Regional Engineer Officer,
Elect. Util. Division.

Partials:

(A) Capt. D. M. Gaither
(B) Major W. M. Spaul
C Lieut. C. W. Atkins
(D) Capt. W. R. Conroy
E Capt. G. H. Rogers
(F) Lieut. E. M. R. Stockers

(1) Assigned to A.M.G. 5th Army.
(2) Assigned to Region IX as Regional Eng'g
(3) Assigned to Staff Economic Sect.
(4) Assigned to Region IV as Highways Officer.
(5) Assigned to Region IX as Elec. Util. Officer.
(6) Assigned to H.Q.A.C.C. Public Works & Util.
and placed on temporary duty Region IX as
Highways Officer.

210

22 Meetings and Conferences

There were many conferences with the Minister (Sig. Marinelli) and with the Director General of Public Works (Sig. Cossiga) during the month. Some principal points dealt with were the following:-

(a) Shortage of hours worked at the chief offices of the Genio Civile in Rome, viz, between 8.30 AM and about 1.30 PM (a similar system obtained in Naples and was the cause of occasional difficulties). Arrangements now made for at least a nucleus staff, with responsibility, to remain on duty till 5 PM daily.

Incidentally this kind of thing, so difficult for us to understand, is a root cause of frequent failure on the Italian side to "get things done". With a higher supervisory staff working such short hours it is easy to understand that their example is followed by many others, in lower grades. The net result is curtailment of effort and output, and little progress. One would have thought with the country in its present condition, and as it has been for a long time past, that hours of work might have been nearly doubled. It has been pointed out more than once that this Sub-Commission only achieves results by, and through Italian executive agency. If this is work and ineffective, or does not work reasonably hard, then those results will be the less, in direct proportion.

(b) Very little work was found in view on the Pontino Marshes (anti-malarial measures) in the first week of July. The Director General of the Ministry was instructed to arrange for a considerable labor force immediately.

As to the financing of this, estimated at over 40 M.L., the L.C.C. Finance Officer with the Ministry of Finance refused approval. Both the Agriculture Sub-Commission and the Malaria Control Branch of the Public Health Sub-Commission consider these works (clearing of obstructions in channels etc. making diversions and other things) to be absolutely essential. The matter has therefore been taken up specially with the Finance Sub-Commission in discussion and by letter. However, after 1 month's delay up to this writing, no approval has been received as yet.

NOTE:- On 6 Aug. 44, PEB (L.C.C.) in a memo summary stated:-

"Owing to the flooding of the Pontino Marshes and the shortage of material, the first cases of pernicious malaria have been reported in Rome". (see also para 13 (c) of this report.)

(c) Recommendations of responsibilities and duties of Genio Civile officials as between certain provinces in Region IV and V were recommended i.e. to the Director General.

(d) Further, he was advised to put Italian engineers of considerable experience in general charge of the country as divided into 3 areas, South Italy to include Regions 1, 2, 3 and 7; Central Italy, Region 4 including Rome, 5, 6 and 8; and North Italy, Regions 9, 10, 11 and 12. These engineers will be designated "Directors" and will be responsible directly to Gen. Fimano. The Comptroller Engineers will continue to be called "Inspectors General".

(f) Inspections and surveys by the Genio Civile superior staff being dependent entirely on transport facilities, the Minister was again pressed (as had repeatedly happened in the last few months) to go ahead with the requisitioning of civilian cars for the purpose, especially in view of the considerable number of them now

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"Owing to the flooding of the Pontine Marshes and the shortage of quinidine, the first cases of pernicious malaria have been reported in Rome". (see also para. 13 (c) of this report.)

(c) Re-arrangements of responsibility and duties of Genio Civile officials as between certain provinces in Region IV and V were recommended i.e. to the Director General.

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(e) Inspections and surveys by the Genio Civile superior staff being dependant entirely on transport facilities, the Minister was again pressed (as had repeatedly happened in the last few months) to go ahead with the requisitioning of civilian cars for the purpose, especially in view of the considerable number of them now available in Rome.

(f) The Minister was reminded about the Town Planning position in its relation to war damage. As to this, reference should be made to the general report of this Sub-Commission para. 6 (ix) where the matter was fully discussed. In the result plans have now been received of Naples, Matera and Reggio (Calabria).

(h) Estimates of expenditure were asked for covering 3 months for the operation of garages serving cars and trucks used extensively (on military highways work). This will probably be debited against the 600,000,000 Lira fund that was established some months ago.

(1) He was instructed to organize complete records of the materials, equipment and so on, that has been and is being furnished by the Allied Armies for the needs of his Department, so as to avoid differences and misunderstandings after the war.

(3) Under "Deaccessionization" the Minister was reminded of the recent Decree and informed of definite steps he must now take, in conformity with the instructions issued to this and all other Sub-Commissions. Continuous measures will be applied in this direction.

(4) His Ministry appeared to be doing little or nothing in the way of planning, and above all financing, such things as the rehabilitation of electric power plants; a work which is perhaps more important than any. Ports, public utilities generally and other things also need similar consideration. Measures given that coordinated plans will be prepared and a regulated system of financing, in conjunction with the Italian Finance Ministry.

(5) Attempts were made to clear up a chaotic condition that had arisen in various places through non-payment of the wages of "Onacontori" gangs. Also concerning the dismissal of some of them without good reason.

(6) Recommendations by the Sub-Commission have indicated particularly difficult road and bridge conditions between Subiaco and Genoa and the towns of Gave and Veronino. The Director General was told to take instant and urgent action.

(7) Lists of obligations required for various harbors in Central and South Italy were again asked for, this request having been previously made on numerous occasions in the last few months.

(8) Lists of firms and contractors who had collaborated with the Germans (24 in number in Rome) were handed to the Minister on 19 July.

The first meeting of Regional Engineers was held at Naples on 12 June and the second at Rome on 24 July 1944.

A summary of the various Regional Engineers' reports is given herewith in Annex 9 of sec. The second meeting was even more useful than the first, since it followed several weeks' experience of the working of the new organization. Questions of policy and procedure were settled and numerous questions of detail.

4. Miscellaneous Matters.

(a) Cost of War Damage (Repairs).

Considerable work was done (end of July) in the preparation of a very approximate estimate expressed in dollars of the expenditure Italy may have to incur, by way of reconstruction and rehabilitation, within the first 12 months after termination of the war. The results were set out in detail in a letter to the Vice-President, Economic Section, dated 5 August and it is sufficient here to give merely the gross totals, viz. south of the Pier-Rimini line 1031 and north of that line 1043 (millions of dollars). The total thus stands at 2074 millions of dollars of 1943 (the cost of imported plant and materials may amount to 943, and the local cost 208 million). 1761 millions of dollars. Needless to say, these figures are dependent on various ranging assumptions, e.g. the damage the Germans are likely to inflict in North Italy before their final evacuation, and on several others.

Italian Finance Ministry.

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(b) Electric Power (destruction)

Damage to electric power facilities in South Italy was severe, but fortunately the largest hydro-electric development there was unharmed. As time went on, the matter northward, delivery to construction became more methodical and complete. This matter was referred to in Part 7 of the June report where a short tabular statement was given of approximate averages concerning war damage to different classes of public works. That statement can now be supplemented by a more specific example.

Within the area of Regions IV, V and VII (A.C.O.) only - very small portion of the power facilities so far inspected are found to be usable. The position at the end of July appeared to be that electricity requirements for essential needs (central Italy) must be of the order of 700 million kWh. The maximum possible power that can be generated, after some repairs, seems to be only about 100,000 kWh. Thus, 2/3 of the plant is destroyed.

(c) A.I.S.S. (Dissemination)

Reference has been made in previous reports of the suppression of the A.I.S.S. (roads), a Fascist creation, and its amalgamation with the Campo Civile as one organization. A Decree was received from the Minister at the end of July outlining his scheme to bring this about, set out in technical and legal terminology. It seems at last that this change is really about to take place. It is one that the Sub-Commission has pressed for for a considerable time; not on political grounds, but on grounds of plain convenience, better organization and expediency.

(d) Plans (Policy)

The Sub-Commission pointed out in a letter 15 July 1944, (to Economic Section) that, following A.S.S.C. directives, the A.C.O. was not to engage in long term planning but to concentrate its efforts on first aid projects which could be executed in a short time. However, industries cannot be started even on a most limited scale in a country like Italy, dependent almost wholly on electricity, unless and until electric power plants are themselves first "rehabilitated". Such power stations, whether hydro or steam-driven, have been damaged or completely wrecked on the scale above indicated. It is not possible, by any means or methods known to engineering science, to put these plants again into operation with "first aid repairs". The task must be embarked on to the extent of 90 or 100%. Otherwise one may as well leave it completely alone. Rehabilitation of power plants as a whole in South, Central and North Italy may take each from 1 to 3 years. Finally, the Sub-Commission has asked for guidance, the matter being of absolutely over-riding importance to the immediate future of Italy. If industries cannot be re-started, unemployment will increase; the country will become poorer and poorer; and Allied shipping will be needed to bring in imports, for which Italy will not be able to pay. Electricity, for power purposes, is the "key".

(e) Salvage of ships. (Refer to March report para 22(a), and later months).

This operation (involving custom ships in harbors) was being organized by this Sub-Commission, corresponding to standard practices of the Italian Public Works Dept., when after a reference of the whole matter to the Commander-in-Chief, Mediterranean Station through the Naval Sub-Group, we were instructed to take no further action.

On 10 July the C. in C. notified that all Royal Naval Salvage personnel and resources are being withdrawn from Sicily and from the "toe" of Italy, and asked A.C.O. (this S.C.) to resume activity. He is delegating authority for the commercial salvage of Italian vessels (not Allied) in E. Sicily and in Calabria. An Admiralty Memorandum M.F.N. 43 of 27 Feb. 44 is to be strictly adhered to.

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(d) Planning (Policy)

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(e) Salvage of ships. (Refer to March report para 12(a), and later months).

This operation (involving piston ships in harbors) was being organized by this Sub-Commission, corresponding to standard practices of the Italian Public Works Dept., when after a reference of the whole matter to the Commander-in-Chief, Mediterranean Station through the Naval Sub-Comm., we were instructed to take no further action.

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207

5. HIGHWAYS AND BRIDGES (MILITARY PRIORITY LIST) AND PUBLIC WORKS.

(a). The position at the end of June was noted in para. 5 of the report for that month. Including Region VI, the re-building of 41 additional bridges was begun in July. Of those, 22 were in Regions III and IV. Some present difficulties engineering problems, since they are modern long span-structures, requiring special equipment and experience for their restoration.

(b). Contracts in hand at the end of July numbered 253, an addition of 634 during the month. These represented a sum of 148.5 million lire, bringing the total value

of contracts let (to 15 July) to nearly 500 million lire. This includes and miscellaneous work, as distinct from highways and bridges. (NOTE: In this report M.L. = millions of lire).

(c) Early in July special inspections were made by the Chief of this Division (Lt.Col. Thompson) of the following highways, including bridges, in the recently liberated areas:-

Route 1 -	Rome to Grosseto
" 2 -	" " S. Lorenzo Nuovo
" 3 -	" " " " " " " " " "
" 4 -	" " " " " " " " " "
" 5 -	" " " " " " " " " "
" 6 -	" " " " " " " " " "
" 7 -	" " " " " " " " " "
" 17 -	Rieti to Popoli
" 74 -	Arborea to S. Lorenzo Nuovo

Preliminary rehabilitation plans immediately followed.

(d) Transport for official inspection purposes was somewhat improved by the requisitioning of civilian vehicles in Rome, and by allocation of 8 Utility cars from Numbers 2 and 3 Districts. The former required extensive repairs which were still in hand at the end of July, and the 8 military vehicles (Class 3 category) also requiring major repairs. It is hoped that at least four of them can be regularly available.

Trucks and trailers acquired from Nos. 2 and 3 Districts (Army) for the transport of engineering material (in number 160) have been difficult to maintain in service owing to lack of spare parts, and wide-spread difficulties in supplies of petrol, oil, and lubricants. Probably not more than 50% of these vehicles can be kept in running condition at any one time.

There have also been most severe difficulties about supplies of P.O.L. to such private transport vehicles as have been brought into use by firms of contractors. To try and solve this, there were several meetings with officers of the Petroleum Section A.P.M.Q. in July. As a result, some special method of dealing with these supplies (involving military contracts) may be established.

(e) On the arrival of the Sub-Commission in Rome lists of experienced public works contractors were compiled, taking account not only of past experience, but also present available equipment and materials. In general, the equipment situation is better than it was south of Naples, but one in contact with the inevitable and acute shortage of transport vehicles. Further, in recently liberated areas, many firms having adequate equipment and organization, were found to have been closely associated with the Germans and with Fascism. An effort has been made to "screen" these, but sheer necessity may compel some of these firms to be used on occasion. Even so, efforts are being made to ensure that their employment does not result in large profits to individuals with questionable records.

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" 74 - Anagnina to S. Lorenzo Nuovo

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6. ELECTRICAL DIVISION.

(a) Staff.

All the staff of this Division moved from Naples to Rome early in July. To offset the serious lack of Officer personnel several first-class Italian electrical engineers were engaged, viz. with technical qualifications and experience, some of them having served with electrical companies operating in Northern Italy.

(b) For Damage.

Damage to electrical Power Stations and equipment throughout Central Italy is found to be most serious. Preliminary reconnaissance surveys have been made, on which some rehabilitation plans may be formulated. At some plants repairs have already started. At all important sites removal of debris and broken machinery is actively in hand. Some equipment can be repaired, but large quantities of the heavier and more complicated types of plant will have to be imported from the U.S. or from the U.K. It is just possible that some factories in

Northern Italy (when they are needed) may be able to replace their original power factories, i.e. plant and machinery.

Arrangements made to requisition a number of small oil-powered portable plants, ranging in size from 25 KW to 2000 KW. Their installation is merely a temporary "stop-gap" until transmission line service can again be restored. They will then be transferred to other places for similar service.

The position in Rome was outlined in para. 13 of the June report. To ensure the maximal output of electricity from the two thermal stations serving the City a steam supply inter-connection was made between plants used by two different Companies. The Sub-Commission gave technical advice, and also supervised the construction of a dam across the River Tiber raising the water level of the river, so as to improve the supply of cooling water to the two plants. (This matter is referred to in Rome Region report, para. 13 (d) later.)

(c) Rates (to Consumers).

On page 15 of the June report a summary was given of the rate increases allowed to various electricity, water, and gas Companies. Arrangements have now been made with the Italian Ministry of Public Works to give preliminary consideration to all such requests in future, rather than have them wholly dealt with by this Sub-Commission. We consider it sound policy to get the Ministry interested in their own problems, particularly as such matters are of vital importance to all industries and to the general public.

The indications are that there will be many such applications imposing increased charges to consumers. (The June report shows that 20 were received whilst the Sub-Commission had its headquarters in Naples.) After consideration by the Italian Ministry their recommendations will be seen by this Sub-Commission and endorsed or otherwise, after consultation with other interested Sub-Commissions.

(d) Power Distribution.

The reasons for this as applied to South Italy and to the Naples area were fully noted in previous monthly reports. The position in Rome City is such that a very strict rationing scheme is necessary. Requests for supplies are screened by a Committee set up under the Rome Area Command and the Rome Region, in collaboration with this Sub-Commission. (Fuller details will be found in the Rome Region report para. 13 (d) later in this report.)

Electrical consumption in South Italy is now under complete control, and the geographical areas and Companies into which it is divided are keeping within the allocations made. Complete sets of graphs have been prepared and are being sent to all interested parties early in August. Similar graphs covering Central Italy are under preparation. Advice and assistance has been given to other Sub-Commissions in S.O.C. in the possibility of electrical supplies to numerous industries, and establishments essential to the war effort.

(e) Actual Demand.

The extreme seriousness of the position may be realized (following the preliminary surveys and studies made) when it is stated that only about 10% of the original power plant is in operating condition in Central Italy, out of a total of over 500,000 KW. At least all this power has resulted from deliberate sabotage.

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(e) Actual Demand.

The extreme seriousness of the position may be realized (following the preliminary surveys and studies made) when it is stated that only about 10% of the original power plant is in operating condition in Central Italy, out of a total of over 500,000 kW. Almost all this damage has resulted from deliberate demolition and bombing by the retreating Germans.

(f) Finances.

A fund is being arranged so that the Electricity Companies may carry out urgent reconstruction and repair work, in conjunction with the Finance Sub-Commission A.C.C. and the appropriate Ministries of the Italian Government.

(g) Local Resources Board (Italian).

The Electrical Sub-Committee of this Board allocated power to the various areas

of Central and Southern Italy for the month of August. The meetings are attended by Lt. Col. LAZZER, Chief of the Electrical and Utilization Division of this Sub-Commission.

(b) Central Electricity Board.

Information was received in July that the Board is to be dissolved and its functions transferred to this Sub-Commission. To coordinate the work of the Sub-Commission with military requirements an advisory committee known as the "Electrical Reconstruction Committee, Italy" has been formed under Lt. Col. LAZZER, and presided over by the Chief Engineer of A.E.I. and the Chief of our Elect. Div. in Vice Chairman. Disapproval of the C.E.B. results in an additional burden of heavy responsibility on this Sub-Commission. Its Electrical Division is being, in consequence, largely reorganized and strengthened.

(c) Electrical Supply.

The Sub-Commission was represented at meetings of the Malaria Control Committee, and a meeting for the allocation of coal supplies (held at A.E.I., E.C.). At the latter the procedure for coal supply and its transportation were clarified.

The Psychological Warfare Board asked for assistance in providing material for use in a magazine published by them. Part of a future issue will be devoted to damage done to electric power systems in Italy by the enemy. Its purpose is to inform the Italian people, and to portray to them, in picture form, some of the reasons why there is so acute a shortage of electricity.

7. REGIONAL REPORTS.

Region I - Sicily. (Regional Engineer Lt. Col. Belli).

(a) A part of the Regional Engineer's time, in July, was devoted to efforts to regularize a large number of Public Works projects that had been carried out under A.E.C. directives, i.e. from September 1943 onwards. Some of the works were completed months ago, but when contractors submitted their bills it was found that the schemes had not passed through the usual channels of the Genio Civile (Provincia alle O.O.P.P.). Under the Italian system not only have proper plans and estimates to be prepared, but sanctioning Decrees for each individual scheme are necessary. Time was spent, therefore, in finding out where the schemes were an exact location, why they were necessary, and the authority that did, in fact, authorize their execution. The Regional Engineer considers this much more such work will be necessary, in order that the records of the Genio Civile may be maintained. (The latter is, in a way, the national of 'skeletons in the cupboard'). An example was the very extensive work of repairing bomb damage in the streets and main drainage system of Palermo City, carried out under the orders of the Municipal Engineer, whereas it should have been done with the knowledge and approval of the Genio Civile. Finally, the latter refused to pay. Something out of this confusion requires time and money. Matters became so bad in recent months, expenditure being over so much money by the Comune of Palermo, that there was grave danger of a certain bank 'collapse'. Had that happened, all debts cleared and urgent war damage repair work would have stopped. Over the island, generally, this particular situation has improved much in recent weeks.

(2) Unpublished.

The Sub-Commission was represented at meetings of the Materials Control Committee, and a meeting for the allocation of coal supplies (held at M.I., H.C.). At the latter the procedure for coal supply and its transportation were clarified.

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(b) Agrigento Province.

204

A special investigation was made in connection with the Genio Civile of an aqueduct supplying a number of towns on the south coast of Sicily, including Lirata. At the Platani River there is a crossing by means of a bridge, and in the operations of July 1943 this was destroyed. There was also other damage caused by a landslide. To rebuild the bridge carrying the aqueduct, and to construct a tunnel at the landslide site, will cost about 14 million lire. The water position is serious in all the Oremes supplied by the aqueduct. To the town of Lirata water is being to be carried. Apart from the high cost of the water, the aqueduct will require considerable quantities of cement, which is in very short supply. It is being carefully considered by the Regional Engineer, and in due course may come to the Sub-Commission for approval.

(a) Messina and Catania

Inspection about the middle of July stated that from the initiation of the work of clearing Messina, in October 1943, a sum of about 100 M.L. has been spent. There was a considerable civilian staff in the Messina Office of the Regional Engineer, but most of this was discharged in July, leaving remaining clearance work in the hands of the local Genio Civile engineers (in whom the Regional Engineer has full confidence).

The Prefect of Messina is in the habit of putting forward large schemes for approval, but the Regional Engineer has laid it down as a general policy that previously approved projects must in general be well in hand, and indeed 75% completed, before other schemes are considered.

Notes:-

As to this, on 4 August 1944, the new High Commissioner for Sicily called at the H.Q. of the Sub-Commission here in Rome, to put forward a special plan that he should be given powers to sanction schemes in the Island, in amounts up to say 10 M.L. He was on the point of leaving time to take up his new appointment at Palermo, relieving Sig. Musotto who was appointed to the High Commissionership only a few months ago. The new Commissioner was told that there is, under present circumstances and having regard to the acute shortage of critical structural materials (steel, iron, timber, cement, etc.) little likelihood of his request being granted.

Demolition and debris clearance are also going on in eight of the communes in the vicinity of Messina where severe war damage occurred. The same applies to the City of Catania, and in three communes adjacent.

(a) Palermo Province.

Work on all interruptions on provincial roads is nearing completion, i.e., restoration in general. It is reported that the Genio Civile have carried out these "very satisfactorily".

(c) Military Highways.

Three special road repair estimates were submitted to H.Q. during the month and designs and estimates for three bridges of major importance, with plans and technical details.

(f) Palermo-Messina Road.

Progress on this is far from satisfactory. The amount of work remaining under the heading of bridges is very considerable. At the time crossing, the dismantling of the Bailey bridge was begun on 24 July. Road traffic is diverted to the new permanent bridge. At the Motta crossing, the C.R.E. (Armies) urgently wanted the Bailey bridge that had been there for a long time, to send it to forward areas in north Italy. The Bailey was de-launched on 12 July by which time a temporary foot-bridge had been constructed for the use of foot-passengers.

(g) Materials.

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Demolition and debris clearance are also going on in eight of the communes in the vicinity of Messina where severe war damage occurred. The same applies to the City of Catania, and in three communes adjacent.

(a) Palermo Province.

Was: on all interruptions on provincial roads is nearing completion, i.e., restoration to normal. It is reported that the Genio Civile have carried out these "very satisfactorily".

(c) Militari Pizzolunga.

Three special road repair estimates were submitted to H.Q. during the month and designs and estimates for three bridges of major importance, with plans and technical details.

(f) Palermo - Messina Road.

Progress on this is far from satisfactory. The amount of work remaining under the heading of bridges is very considerable. At the time of writing, the launching of the Bailey bridge was begun on 24 July. Road traffic is diverted to the new permanent bridge. At the Motta crossing, the C.R.E. (Arms) urgently wanted the Bailey bridge that had been there for a long time, to send it to forward areas in north Italy. The Bailey was de-launched on 12 July by which time a temporary foot-bridge had been constructed for the use of foot-passengers.

(g) Materials.

The output of the asphalt works at Ragusa is limited by shortage of machinery to pulverize the rock and explosives to quarry it. Shortage of explosives, generally, militates against the proper working of many stone quarries. There are two large cement works on the island, but coal and transport shortages limit the output. There are pine forests on the slopes of Mt. Etna, but it is almost impossible to get transport for the delivery of trees to the mills. Numerous foundries in Sicily can produce castings and some steel; scrap iron and steel are available, but there is a most severe shortage of coal and coke for melting purposes.

Def. Repairs

The situation shows no change as compared with previous months. It is very serious. The Regional Engineer is keeping up a "continual pressure". This is particularly essential where work on bridges is concerned, because in less than 3 months the rainy season will start again, torrents and rivers will come down in heavy flood, and partially completed works are particularly susceptible to flood damages.

(1) Increased accommodation in Prisons.

This was referred to in Para. 6 (vi) of the June Report. Additional accommodation was required for about 3200 prisoners, a proportion of these to be accommodated at Caltanissetta, Favignana and Augusta in Sicily. Work has already started on the first of these, and the Genio Civile are preparing plans and estimates for the two latter under removal guidance of the Regional Engineer. Towards the end of the month a proposal was received to use the Island of Ustica for prison purposes and this Sub-Commission sent an officer there to make an investigation.

(2) Buildings destroyed.

Examination of public works in Sicily, mainly restoration and repairs completed during 1943, so far as is possible ascertainable, amounted to just over 753 M.L. This includes the date of reconstruction in 1943 to 30 April 1944. (Figures for May, June and July are under preparation and will be submitted later). It is interesting to note that, of the figure mentioned, about 344 M.L. were spent on bridges and roads restoration, 84 M.L. on removal of debris and demolitions, and 97 M.L. on restoration of public buildings. Agriculture and water supply involved 26 M.L., and main drainage repairs 41 M.L.

(3) Electrification.

Referring to para. 2 (vi) of the June report, which gave data concerning power stations both hydraulic and steam-driven, the Regional Engineer furnishes similar data in considerable detail for the month of July. Also as to volumes of water held in reserve at the principal high level reservoirs.

A close check was maintained on repair work (mentioned in the June report) in hand at the Palermo, Porto Empedocle and Gibellina steam-driven electric power stations. The Porto Empedocle plant was expected to be restored to full service by the end of July. Repairs to the tunnel at the San Carlo Hydro-Electric Station made good progress, 58 meters of various classes of work having been completed, with 51 meters still remaining.

(4) Projects in hand.

Referring to the information given in the June report, para. 2 (ii), the 132 projects there mentioned have now been increased to 172. Of these, there are only two exceeding in value 5 M.L. each, and there are six schemes of between 1 M.L. and 5 M.L. each. Of the remainder, a very large proportion are below 0.1 M.L. each. The gross total amounts to 60 M.L. The figure includes 19 schemes of repairs to churches, all in Palermo with the exception of three that are at Messina. These church repairs have only been undertaken under the general control

(j) Restoration and Repair

Investigation of public works in Sicily, Italy restoration and repair cost of the north of Sicily, no far as is possible to ascertain, amounted to just over 733 M.L. This was from the date of completion in 1943 to 30 April 1944. (Figures for May, June and July are under preparation and will be submitted later). It is interesting to note that, of the figure mentioned, about 344 M.L. were spent on bridges and roads restoration, 84 M.L. on removal of debris and demolitions, and 27 M.L. on restoration of public buildings. Lighthouses and water supply involved 26 M.L., and maintenance remains 41 M.L.

(k) Electricity

Referring to para. 9 (vi) of the June report, which gave data concerning power stations both hydraulic and steam-driven, the Regional Engineer furnishes similar data in considerable detail for the month of July. Also as to volumes of water held in reservoirs at the principal high level reservoirs.

Also check was obtained on repair works (mentioned in the June report) in hand at the Palermo, Porto Empedocle and Gibellina stations. The Porto Empedocle plant was expected to be restored to full service by the end of July. Repairs to the tunnel at the San Carlo Hydro-Electric Station made good progress, 58 meters of various classes of work having been completed, with 31 meters still remaining.

(l) Projects in hand

Referring to the information given in the June report, para. 9 (ii), the 132 projects there mentioned have now been increased to 172. Of these, there are only two exceeding in value 5 M.L. each, and there are six schemes of between 1 M.L. and 5 M.L. each. Of the remainder, a very large proportion are below 0.1 M.L. each. The gross total amounts to 60 M.L. The figure includes 19 schemes of repairs to churches, all in Palermo with the exception of three that are at Messina. These church repairs have only been undertaken under the general control of the Regional Engineer, at the express request of the Monumenta & Fine Arts Sub-Commission. For the rest, the list of 172 projects comprises almost every class of work, e.g., water-works, bridges, public buildings, demolition of dangerous buildings, lighthouses, hospitals, ports and harbors, etc.

202

5. Region II (Regional Engineer Major Knight).

- (a) The Regional Engineer has taken over responsibility for Foggia Province which up to recently was in A.M.G. territory.
- (b) On 23 July Lt. Stephens (B) reported to the Regional Engineer for duty. The

(c) Matroids (question).

(a) Potomac Province.

Throughout July, extensive patching and repaving went on along the whole length of Route 96 from Graveline boundary through Tolvo, Potenza Tito, & Rome firm of contractors has a local office in Toronto (Messrs. Rotundi) and the Rome office placed a credit of 1.25 M.L. in the bank at Toronto to enable their manager there to operate.

On all these, maintenance work progressed "very satisfactorily" in July. Shortage of bitumen for the re-surfacing of Route 16, Bari to River Ofanto has compelled cessation of further work, but the worst portions of the road have now been completed. Similarly, the same type of work on Route 98 from Canosa to Bari can only proceed as far as Ruvo. Two other stretches of highways (military priority) were contracted for, viz. between Bitetto and Adelfino. Experimental work was done on the road between Bitonto and Bitetto with emulsion produced at a factory in Bari using olive oil to break down the bitumen. (This experiment is being carried out at the special request of the Chief Engineer, No.2 District (Armies)).

(f) bridges.

At the River Ontario on Route 16 the new bridge was good progress (built up to 6 feet). Completion of the old bridge over the same river Route 20 was complete. Certain other bridge works were seriously delayed in July owing to cement shortages.

(5) Provincial and National Highways.

The Genio Civile have a program for Bard Province and the C.R.E. (Army) is providing certain materials and equipment. The same applies to National Highways in Brindisi Province. At present, the C.R.E. has two road construction companies which he wished to keep fully employed. The Regional Engineer agreed to these companies doing certain work previously as the responsibility of the Genio Civile (presumably the C.R.E. is keeping an account of this expenditure with a view to eventual recovery of the cost from the Italian Government).

(b) Other Work.

At Alameda and hospitals in Earl, Puerto Rico, special work was done on the applications to the Department of Education, particularly on the applications for admission to the University of Puerto Rico. The work was done by the following persons:

Mr. J. M. ...
Mr. J. M. ...
Mr. J. M. ...

Throughout July, extensive patching and repairs went on along the whole length of Route 96 from Gravina boundary through Telve, Potenza Tiro, A Roma film of contractors has a local office in Taranto (Messrs. Rotondi) and the Rome office placed a credit of 1.25 M.L. in the bank at Taranto to enable their manager there to operate.

(c) Military Highways.

On all these, maintenance work progressed "very satisfactorily" in July. Shortage of bitumen for the re-surfacing of Route 16, Bari to River Ofanto has compelled cessation of further work, but the worse portions of the road have now been completed. Similarly, the same type of work on Route 96 from Canosa to Bari can only proceed as far as Ruvo. Two other stretches of highways (military priority) were contracted for, viz. between Bitetto and Adelfia. Experimental work was done on the road between Bitonto and Bitetto with emulsion produced at a factory in Bari using olive oil to break down the bitumen. (This experiment is being carried out at the special request of the Chief Engineer, No. 2 District (Armies)).

(f) Bridges.

At the River Ofanto on Route 16 the new bridge range good progress (built up to 6 feet). Demolition of the old bridge over the same river Route 96 was complete. Certain other bridge works were seriously delayed in July owing to cement shortages.

(g) Provincial and Commercial Highways.

The Conio Civile have a program for Bari Province and the C.R.E. (Army) is providing certain materials and equipment. The same applies to Commercial highways in Brindisi Province. At Taranto, the C.R.E. has two road construction companies which he wished to keep fully employed. The Regional Engineer agreed to those companies doing certain work previously as the responsibility of the Conio Civile (presumably the C.R.E. is keeping an account of this expenditure with a view to eventual recovery of the cost from the Italian Government).

(h) Other Works.

At districts and hospitals in Bari, Taranto and Lecce, special works are required and calculations and schemes were outlined. Alterations to the specifications were made in certain cases to avoid the use of critical materials. Similarly, schemes for repairs to post office buildings and barracks for firemen at Brindisi were approved, and minor buildings, water works and main-drainage and sewerage at several other places.

(i) Electricity.

An increased allotment of electric energy was made to the Apulia area and the Foggia Paper Mill can now be operated. There was trouble with the employees of the Pugliese Electricity Co. over wages, which was settled by the Regional Labor Officer (at any rate temporarily).

The Regional Engineer reports that the public generally had paid little attention to the decree published by the Italian Government requiring persons who wanted continuation of supply to make a special application. The position will have to be brought to their notice much more seriously very soon by cutting off supplies, since the number of applications received has been disproportionately low.

1 109. REGION III. (Regional Engineer Lt. Col. HANLEY)

(a) Territorial Changes.

On the 20th July the Province of Benevento and ~~Avellino~~ ~~were handed over to~~ the control of the Italian Government, together with Naples Province, excluding the Port and City.

(b) Labour, contractors etc.

Mr. III District (Amies) had difficulties concerning ~~labour~~ and the ~~Car-~~ ~~tanieri~~. There were two specific complaints concerning the Tennaio and Frosinone areas, but in point of fact these concern Region IV and not Region III. (No. 3 District was advised accordingly.)

All contractors working, principally on roads and bridges in Region III, were called to a conference at Caserta during the month. This proved useful, and similar meetings will be held monthly in future. Personal contact was established and the Regional Engineer was able to answer questions on policy, supplies of materials, and systems of execution and control.

A second conference was held at Caserta, attended by provincial representative of the Genio-Civile throughout the region; plans were made for the following month (August), and a program defined.

(c) Personnel.

Capt. Peltzer, an officer with considerable experience of highways and bridges problems, was transferred to one of the new Northern Regional ~~and also an enlisted~~ ~~unit~~. Two Italian civilians were taken on in their place. One will have to be prepared in the near future.

(d) Inspections.

Detailed inspections were made (personally by the Regional Engineer) in Benevento Province and in Salerno Province. In the former a certain reservoir, supposed to have been subjected to war damage, was found to have no connection with that at all, the damage having occurred four years ago through a landslide. Road conditions and all bridges as far as Campobasso were examined, and discussions followed with the Provincial Commissioner. Route 7 (Die) was also gone over on the following day. Apart from severe lack of cement for the making of concrete the progress position was found to be 'excellent'.

Salerno Province was rated as almost equally satisfactory, save that a bridge project, the principal one in Agropoli, had not been started. Necessary arrangements were made.

At Avessa the Military Railways Service was assisted to overcome severe water shortage difficulties, which were hampering supplies of water to the locomotive depot there. A pump was quickly installed and a contractor put to work (a deputation from the Military Railways Service had attended at the Hq. of the Sub-Commission a day or two previously, in order to explain the seriousness of the situation at Avessa).

(e) Works in hand.

called to a conference at Caserta during the month. This proved useful, and similar meetings will be held monthly in future. Personal contact was established and the Regional Engineer was able to answer questions on policy, supplies of materials, and systems of execution and control.

A second conference was held at Caserta, attended by provincial representatives of the Genio Civile throughout the Region; plans were made for the following month (August), and a program defined.

(c) Personnel.

Capt. Feldman, an officer with considerable experience of highways and bridges in Poland, was transferred to one of the new Northern Regions, and also an enlisted man. Two Italian civilians were taken on in their place. More will have to be engaged in the near future.

(d) Inspection tours.

Detailed inspections were made (personally by the Regional Engineer) in Benevento Province and in Salerno Province. In the former a certain reservoir, supposed to have been subjected to war damage, was found to have no connection with that at all, the damage having occurred four years ago through a landslide. Road conditions and all bridges as far as Capriano were examined, and discussions followed with the Provincial Commissioner. Route 7 (Bis) was also gone over on the following day. Apart from severe lack of cement for the making of concrete the progress position was found to be "excellent".

Salerno Province was noted as almost equally satisfactory, save that a bridge project, the principal one in Agropoli, had not been started. Necessary arrangements were made.

At Aversa the Military Railways Service was assisted to overcome severe water shortage difficulties, which were hampering supplies of water to the locomotive depot there. A pump was quickly installed and a contractor put to work (a deputation from the Military Railways Service had attended at the HQ. of the Sub-Commission a day or two previously, in order to explain the seriousness of the situation at Aversa).

(e) Works in hand.

An extremely heavy amount of work is in hand in this region. The volume and complexity of it can only be appreciated by examination of various series of 200 related statements. Several thousand workmen are engaged, dozens of contractors, and the aggregate cost runs to many millions of million lire. At the end of July, for example, there were 48 special road construction contracts, the majority of them ranging from 1 to 5 million lire each, and with one or two of 12.5 million lire. (Included in the 48 are 13 contracts in preparation, but not yet finally let.)

Similarly, there were 25 bridges actually in hand, two for which tenders were being invited, and one scheme in preparation (plans and calculations).

On highways carrying military priorities there was (by the middle of July)

18 bridge projects in hand, of which five were ~~over~~ ^{being} completed. Two Bailey bridges (portable) were removed by the Army to forward areas during the month, and at three other sites the present Bailey bridges can be removed in due course.

(f) Naples City.

This was referred to in para. 11 of the June report in detail. The Regional Engineer generally superintended about 20 repairs and building works in the City of Naples, of an urgent nature carried out by the Municipality; also street repairs to the number of 22. A work mentioned in the June report in para. 11 (iii), Stalla Polare, was completed after considerable difficulties in getting the total of 50 tons of cement required, and co-ordination of the street works with underground works in hand by gas, railway, and water companies. The new water main was practically completed.

Naples was largely without water for about 36 hours during the month, due to a breakdown of the aqueduct many miles away from the City. Very special efforts were made by the Regional Engineer to get the Water Company to complete the emergency repairs. These were successful, and the City was relieved from a situation that was rapidly becoming serious in the very hot weather.

Further, a tunnel was lined with cement at Capodimonte which will in itself constitute a water storage, and ensure a supply to consumers on higher levels surrounding the City. This tunnel will also enable the Comune of Chiusano to have a supply of water, which it has never had before.

(g) Gas Supplies.

Referring again to para. 11 (vii) of the June report (concerning gas) supplies were given to 12 additional streets in Naples. Coal for the works came in regularly in July, and at the end of the month there was a stock sufficient for the next two months.

(h) Electricity.

Para. 11 of the June report noted that 650 applications for continued supplies had been received. In July there were 247, of which 79 were rejected and four were deferred. Acceptance or refusal of such applications, as has been noted in previous monthly reports, has a direct bearing on the amount of energy available for essential war industries and the due functioning of public utilities. The power allocation for July (Region III) was 14 million units, which was nearly 24 million less than that for June. The Regional Engineer protests against this reduction, since essential industries will be started in the autumn. He considers that consumption of electricity by the Armed Forces ought to be "as carefully rationed as civilian consumption". The new 5,000 K.V.A. transformer installed at Torre Annunziata (see last month's report) unfortunately failed, and the electrical load in the area will therefore not get the relief that was anticipated. The breakdown is being investigated.

(i) Communications.

The report contains information about telephone and telegraph services in some detail (presumably to be dealt with by the Sub-Commission primarily con-

a breakdown of the aqueduct many miles away from the City. Very special efforts were made by the Regional Engineer to get the Water Company to complete the emergency repairs. These were successful, and the City was relieved from a situation that was rapidly becoming serious in the very hot weather.

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(2) Gas Supplies.

Referring again to para. 11 (vii) of the June report (concerning gas) supplies were given to 12 additional streets in Naples. Gas for the works came in regularly in July, and at the end of the month there was a stock sufficient for the next two months.

(3) Electricity.

Para. 11 of the June report noted that 650 applications for continued supplies had been received. In July there were 217, of which 79 were rejected and four were deferred. Acceptance or refusal of such applications, as has been noted in previous monthly reports, has a direct bearing on the amount of energy available for essential war industries and the due functioning of public utilities. The power allocation for July (Region III) was 11 million units, which was nearly 21 million less than that for June. The Regional Engineer protests against this reduction, since essential industries will be started in the autumn. He considers that consumption of electricity by the Armed Forces ought to be as carefully rationed as civilian consumption. The new 5,000 K.V.A. transformer installed at Torre Annunziata (see last month's report) unfortunately failed, and the electrical load in the area will therefore not get the relief that was anticipated. The breakdown is being investigated.

(4) Communications.

The report contains information about telephone and telegraph services in some detail (presumably to be dealt with by the Sub-Commission primarily concerned).

10.

REGION IV. (Regional Engineer, Col. Edwards.)

199

(a) The report gives some details about transportation and communications, which will be taken note of by the Sub-Commissions concerned. (As indicating road traffic, under the former, it is reported that over 3,400 tons of goods were loaded in July, this includes 2,486 tons of food-stuffs. In addition 361 persons and their baggage were transported.)

- 14 -

(b) Projects (Value)

During July about 20 schemes in the three Provinces of Frosinone, Littoria and Rome were approved for urgent execution.

At the end of the month further schemes amounting to 41 million lire were under preparation; of these, 38 million represented rehabilitation of water-works, mostly in the heavily damaged Province of Littoria. The total of 82.5 million lire covers buildings, water, main drainage, damages and debris clearance, together with a small amount for electricity and Sanifica (anti-salarial) measures.

The figure does not include any expenditure on roads and bridges.

(c) Personnel.

The Genio Civile by the end of July had a fairly complete staff in the three Provinces mentioned, and also in Viterbo, Rieti and Terni. The Regional Engineer has largely staffed his own office with Italian personnel. (Weekly progress reports now arranged for from the Genio Civile of the six Provinces.)

(d) Water Supplies etc.

Water supply difficulties reported in Perugia, and three pumps were installed. Maps prepared showing all demolished and damaged bridges in the two Provinces of Rieti and Viterbo. Some repair works were started under A.M.O. (Army) auspices, which will be continued. A scheme to meet four million lire for urgently needed water supplies in Rome Province. (Outside the city) was under preparation. For Anzio and Nettuno a one million lire scheme is well advanced (water supply) and one of the three new pumps started work. Distribution systems require considerable overhaul.

Reconnaissance made and agreement reached in principle for a three million lire scheme to rehabilitate water supplies to 11 separate communes round Colli Laziale; water from the large Sibirivio Aqueduct will shortly be available for the towns of Velletri, Palestrina, Grotto and Lariano (which in the meantime are in serious difficulties).

The Genio Civile instructed to give first priority to water supplies, and secondly main drainage. In four towns they have been allowed to begin salvage and debris removal schemes.

Small aqueduct at Freggi repaired (on a bridge) and supply now normal. The Sibirivio Aqueduct, which serves 24 communes and 300,000 people temporarily repaired where it crosses the Aniene River, and now delivering water to it out of 24 Communes. Further repair works still in hand, also at the Ceperano and Sora Aqueducts, both in Frosinone Province. At Frosinone town pumps and motors were repaired, temporary tanks provided, repairs done to rising mains, and a further scheme will enable water to be delivered to higher parts of the town. Numerous other water rehabilitation schemes in hand viz. - at S. Giorgio, S. Appollinare in Frosinone Province, and for Terracina, Fondi, Itri, Gaeta, Formia, Minturno, and other places in Littoria Province. The Genio Civile made little progress up to the 15th July, and the Regional Engineer, therefore, arranged for the Professor of Hydraulics at Rome University (Prof. Colosimo) to make special inspections. Within a week he submitted preliminary proposals for all the towns mentioned, except Gaeta. Formia has a temporary supply at present, conditions at the other places are bad. Water has to be carried from Itri to Formia. Perennial works for

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Reconnaissance made and agreement reached in principle for a three million lire scheme to rehabilitate water supplies to 11 separate communes round Colli Laziale; water from the large Simbrivio Aqueduct will shortly be available for the towns of Velletri, Palestrina, Cave and Lariano (which in the meantime are in serious difficulties).

The Genio Civile instructed to give first priority to water supplies, and secondly main drainage. In four towns they have been allowed to begin salvage and debris removal schemes.

Small aqueduct at Rieti repaired (on a bridge) and supply now normal. The Simbrivio Aqueduct, which serves 24 communes and 300,000 people temporarily repaired where it crosses the Aniene River, and now delivering water to 14 out of 24 Communes. Further repair work still in hand, also at the Ceperano and Sora Aqueducts, both in Frosinone Province. At Frosinone town pumps and motors were repaired, temporary tanks provided, repairs done to rising mains, and a further scheme will enable water to be delivered to higher parts of the town. Numerous other water rehabilitation schemes in hand viz. - at S. Giorgio, S. Appollinare in Frosinone Province, and for Terracina, Fondi, Itri, Gaeta, Formia, Minturno, and other places in Littoria Province. The Genio Civile made little progress up to the 15th July, and the Regional Engineer, therefore, arranged for the Professor of Hydraulics at Rome University (Prof. Colosimo) to make special inspections. Within a week he submitted preliminary proposals for all the towns mentioned, except Gaeta. Formia has a temporary supply at present; conditions at the other places are bad. Water has to be carted from Itri to Formia. Remedial works for Formia, Terracina and Minturno can probably be done fairly quickly, after the removal of numerous mines left by the Germans (2 Italian companies of Engineers for this work arrived in Littoria at the end of July).

Generally, it is expected that restoration of water supplies to these towns may cost anything up to 13 million lire.

(e) Other works.

In Frosinone town a 20 million lire scheme was submitted for buildings (reconstruction) in order to enable the Provincial Administration to re-start.

There is a 14 million lire estimate also for other buildings repairs, together with a balance for repair of 4 urgently needed public buildings in the town of Littoria.

A project was received from Terni just before it was due to revert to Region IV. This is taken as a good augury of coming Centro Civile activity there.

(f) Electricity

Out of a total of over 60,000 K.V.A. installed, the effective output at the end of July was only 33,000 K.V.A. A measure of the destruction carried out by the enemy in this part of Italy. Figures include the large hydro-electric plant at Terni of 385,000 K.V.A., practically completely destroyed. One station at Spoleto of 8,000 K.V.A. resumed operation on 27th July, but the advantage has scarcely been felt because of the enormous demand for electricity in Rome City and its surroundings, and the drop in water-levels at the hydro-electric storage reservoirs. Small stream-plants generating electricity near Civitavecchia and Rieti are being repaired, but these will only give 2,500 K.V.A. Data and information on other small generating stations in outlying districts being collected. In the south of the Province distribution lines have been extended to Frosinone and power may have to be passed to these from stations north of Rome; this will tend to reduce the quantity available for Rome itself, and north thereof.

(g) Highways and bridges

For Route 1 a maintenance contract was arranged, after some difficulties owing to exceptionally high rates being paid in Civitavecchia.

On Route 2 250 men were at work at the end of July with tunnel entrances being reconstructed at Viterbo and Bolsena.

On Route 3 a maintenance contract has been taken over from the Eighth Army A.M.G.

On Route 4 contracts have been let for 3 bridges and the filling of craters; 3 more bridges to begin by the first week in August.

On Route 5 Cantieri personnel have been increased and special repairs will be finished by the end of August. Contracts let for complete re-building at three demolitions, these involving over 20,000 cu/yds of rock excavation. There are also retaining walls and tunnel entrances.

On Route 6 contracts prepared for the bridge at Melfa River. Work at Capranza bridge delayed owing to shortage of cement.

On Route 7 maintenance is by 2 contractors, one of these employing over 300 men.

On Route 82 (Arce/Avezzano), there are 17 demolitions in a length of 70 km. Tenders received for repairing half of these (also 11 bridges on this road being built by the Provinces, under local arrangements).

Generally, in the Region, 59 bridges are under construction, with a completion date for the larger ones of 1st November next.

(h) Remarks

The Regional Engineer reports, apart from general transport difficulties, as follows:-

Some difficulties due to breakdown of organizations were successfully

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On Route 2 250 men were at work at the end of July with tunnel entrances being reconstructed at Viterbo and Bolsena.

On Route 3 a maintenance contract has been taken over from the Eighth Army A.M.G.

On Route 4 contracts have been let for 3 bridges and the filling of craters; 3 more bridges to begin by the first week in August.

On Route 5 Cantoniari personnel have been increased and special repairs will be finished by the end of August. Contracts let for complete re-building at three demolitions, these involving over 20,000 cu/yds of rock excavation. There are also retaining walls and tunnel entrances.

On Route 6 contracts prepared for the bridge at Melfa River. Work at Ceperano bridge delayed owing to shortage of cement.

On Route 7 maintenance is by 2 contractors, one of these employing over 300 men.

On Route 82 (Arce/Avezzano), there are 47 demolitions in a length of 70 km. Tenders received for repairing half of these (also 11 bridges on this road being built by the Province, under local arrangements).

Generally, in the Region, 59 bridges are under construction, with a completion date for the larger ones of 1st November next.

(h) Remarks.

The Regional Engineer reports, apart from general transport difficulties, as follows:-

"Enormous difficulties due to breakdown of organisations were successfully overcome in the matter of passes, permits and control. All this latter work which should not fall on this Division (Public Works)."

197

114. HOME REGION. (Regional Engineer Lt-Col. BURNETT)

(a) Whilst Rome remains a 'walled' city, one of the few Capitals in Europe which the tide of war has swept round, or gone over, it is not a normal city so far as many things are concerned. Electric power is notably lacking, and there is little or no fuel. A population much greater than normal coupled with a considerable influx of troops, heavy military traffic on roads and streets not constructed for it, together with considerable damage to the water supply system, have presented the Regional Engineer with innumerable problems. Again, because many high-ranking officers have decided to make their headquarters in Rome, time has had to be spent on minor works, under orders, that were perhaps not in keeping with their relative importance. There has been joint and very profitable use of engineering personnel as between the C.A.E. (British) and the E.A.A.C. (American), in conjunction with Col. Birchett's staff. (The latter consists of only seven officers, British and American, in addition to Lt-Col. Birchett.)

Because of the comparatively limited area inspection tours are usually carried out in a few hours, including those as far away as the coast on the west.

(b) Highways.

Routes 1 - 8 are in the Home Region, all of military importance except No. 5. Heavy traffic of the Fifth and Eighth Armies has involved equally heavy repairs, mostly on contract. The by-pass road round Rome is of considerable importance, and the Genio Civile have been specially instructed as to its maintenance.

Numerous secondary highways have been neglected, since practically all transport, petrol supplies and asphalt were needed (June and July) for the other highways mentioned.

(c) Buildings etc.

A moderate building program has begun, concerning hospitals, the University and certain State monuments. Only essential work has been approved. There are several 'Bonifica' (anti-malarial) works in the Home Region which remain flooded, owing to destruction of pumping plants by the enemy. Some have been repaired and are now operating, under liaison with the Medical authorities. Certain irrigation works in the Agro Romano are obtaining water by allowing only night pumping, when some electricity can be spared.

(NOTE:-

(1) As to the 'Bonifica' works, ERE/HIC of 7 Aug 44 stated that:

Rome: 'Fertitious malaria has re-appeared for the first time in many years, but there is no quinine.'

(ii) Refer also to para. 3 (b) this report.)

(d) Electrical.

Rome is now receiving power from two steam plants and a certain amount from seven hydro-electric plants. Damaged transmission lines between the plants and Tivoli have been repaired.

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(i) As to the 'Bonifica' works, PMS/RLO of 7 Aug 44 stated that:

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

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Rome is now receiving power from the steam plants and a certain amount from seven hydro-electric plants. Damaged transmission lines between the plants and Tivoli have been repaired.

For the steam plants delivery of fuel continues to be a major difficulty. Diesel oil was shipped in July from Naples to Anzio by A.C.C. schooners, 198 from Anzio to Rome by civilian trucks. Coal is required at the rate of 400 tons a day, and this has been approved by the Coal Allocation Section. The greatest average delivery in July, however (over seven days) was at the rate of only 175 tons.

In the Tiber River there is a seasonal drop in the water-level. A temporary dam had to be constructed to raise the level, in order to ensure a supply of

exceeding water to the accident area. It is hoped that this will enable the steam plant to operate until the autumn rains.

Under electricity rationing City users have been classified into three categories, i.e.

1. Preferential (military and civilian) 24 hours per day;
2. Semi-preferential, 3 hours per day;
3. Others 16 hours every fourth day.

The number of preferential consumers was increased by 64 in July, making a total of 155.

(c) Gas service.

The "Societa Romana del Gas" has repeatedly asked permission to resume services; their latest proposal is for the whole City, for only 14 hours out of the 24. This would require 240 tons per day of coal, which is not available at present.

(d) Trams.

Tram and trolleybus services have continued on a limited basis, but a new operational plan provides longer hours as from 1st August, without increasing the consumption of electricity. (Of the total electrical energy now available for Rome, about 12% is required for the running of street-cars.)

(e) Water-supply.

This is still a most serious problem. Mains between the springs at Tivoli are now in wooden troughs, which will have to be replaced before the autumn. Springs at the source are still a mass of ruins. Valve stations have to be re-built. One principal source, a spring requiring pumping, is out of action. Nevertheless, the Marcia Aqueduct is now furnishing 8% of its normal quantity, and the other systems almost their normal. High level areas of the city are frequently without water because of local breaks in distribution mains, or more frequently because Army units with pumps have almost emptied the mains, depriving higher levels of any pressure. There can be no improvement until this practice ceases, and until the springs and the main aqueduct are again operating at 100% efficiency. Units containing large numbers of men frequently move into buildings or establish residential camps, in places where the existing mains are too small to afford proper supplies. There are serious difficulties and complaints. (The Regional Engineer suggests that if Units would be more careful to consult his Department before taking over buildings, on this question, there would be less trouble.)

(h) Other works.

There was some damage to the main-drainage system, which is still under repair. Banks defining the River Tiber were broken and damaged in several places; reconstruction is in hand.

(i) Materials.

All repair works have been hampered by shortage of cement, asphalt, oxygen and other things.

It is hoped that the Government will be able to use American portland cement.

(f) Transportation.

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It is hoped that schooners of 50 tons will be able to use Fiumicino port ¹⁹⁵ where the canal and harbour are now under repair and 15 small sunken vessels ¹⁹⁵ have been raised. A plan was made for the removal of enemy mines in Rome Region area generally, and this is being carried out.

(j) Miscellaneous.

About 650 people are employed on normal maintenance of gardens and parks in Rome, but only 13 horse drawn vehicles were available and no motor transport. For refuse removal about 1100 people are employed, this work also gravely impeded by having only 26 available and no motor vehicles.

(k) Aires (clearance).

An Italian mine clearance unit began work about mid-June, and at the end of July were working in the "Ido di Foma area. Two of the ~~men~~ ^{men} were killed, leaving 38 at work.

12. REGION V (Regional Engineer Lt-Col. Latimer).(a) Territorial Changes.

Region V now includes Ancona but physically the Eighth Army retains full control over that Province and also Macerata. Immediately south of Ancona. Foma Province was taken out of Region V to operate as a special entity, with public works in it under the control of separate Engineer. One officer, a captain, has been left in Foma Province to assist in the still remaining heavy work there on highways and bridges. Campobasso Province was returned to Italian Government control though remaining within Region V. Regional headquarters moved forward to Aquila but public works officers had been working from forward positions for some time previously. This saved considerable time through reduced travel distances.

(b) Highways and bridges.

In July there were no changes in the priority lists concerning military highways. Route 16 along the coast remains a first priority. The Regional Engineer expresses surprise that routes 5 and 17 have not been dropped from the military priority list. He expected to get a revised list from the Chief Engineer, (Brig. Lindsey) within a few days. From a supplies standpoint as distinct from positive military requirements, certain lateral highways were being studied in order to re-establish these lines, either by temporary bridges, road diversions, or other expedients. In Macerata Province more than 100 bridges reported destroyed. Highways and bridges work occupied so much time in July that little attention could be devoted to other classes of public works except that of a temporary housing scheme for Isernia (Campobasso Province).

(c) Electricity.

Destruction of the Terni group of hydro-electric stations presented serious problems particularly in Aquila, which was largely dependent on Terni. In the meantime an allotment of 400 KW from elsewhere was received, subject to withdrawal at any time since Ancona may need this energy later. Major Bennett is specially mentioned as saving some exceptional work in connection with both electricity and water supplies.

Other works.

Surveys of several cement plants, brick works, etc. were undertaken with a view to giving them electricity and getting them back into production. Water supply problems were acute throughout the northern part of Region V, the Genio Civile being instructed to give this the highest possible priority at many places, up to the point where at least an absolutely minimum supply could be made available.

Damage to drainage and storm water sewers was extensive particularly in

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Damage to drainage and storm water sewers was extensive particularly in Pescara, where bomb damage caused basements to be flooded with sewage and open drainage ditches were over-flowing. In the hot weather of July the ⁹⁴As particularly dangerous to health; remedial measures were further complicated by the presence of numerous mines and booby-traps. As to gas-works, no attempt has been made to re-operate though in Pescara a stock of gas coal was found.

REGION VI - SARDINIA (Regional Engineer, Capt. Smith).

(a) General.

The situation in Sardinia was dealt with in some detail in recent monthly reports of this Sub-Commission and there is little of special interest to add concerning activities in July, though steady progress is reported in most directions.

Major Spann was transferred from Sardinia to become Regional Engineer of Region IX as from 11 July. Capt. Smith took his place. The latter is now the sole representative of the Public Works and Utilities Sub-Commission, with special responsibility for the heavy clearance and reconstruction work still going on in Cagliari, and a general responsibility for work in hand over the rest of this very large island.

(b) Highways and bridges.

No important change. Three roads have been resurfaced providing access to Airports, to a military hospital, and to various Q.M. and Ordnance dumps. Road used by military vehicles through Cagliari have been fully cleared and repaired. As noted in previous reports secondary and inter-communal highways are deteriorating rapidly, due to shortages of bitumen and other repair materials. The head of the Genio Civile (Sig. Suttini) visited Rome in July to consult with his Ministry, and on his return transfer of the responsibilities of the A.A.S.S. to Genio Civile was put actively in hand.

(c) Buildings.

A comprehensive scheme for reconstruction of damaged school buildings etc. in Cagliari was approved in June, in connection with the Provincial Commissioner who urgently desired action to be taken. Street repairs in the city made considerable progress. In Cagliari debris had been cleared by the end of July to the extent of 63%, with demolition and clearance of particular sites to the number of 12, 69 in progress, and 38 remaining to be started. Six works of sewer repairs were finished and two remained in hand. Buildings such as markets, slaughterhouses, public latrines and also buildings belonging to the Municipality of Cagliari were put in hand.

The position regarding electricity referred to in previous monthly reports showed no change; figures furnished of the precise quantity of water now available (storage) at the hydro-electric reservoirs.

(d) Miscellaneous.

The water situation in Cagliari is likely to become critical by October. The Municipality has permitted gross wastage of water and it is necessary now to put on them very considerable pressure in the direction of a rationing scheme, at drastic steps to reduce losses. The Regional Commissioner (Brig. Carr) had interested himself closely in the matter and was assisting the Regional Engineer to the maximum by administrative action. (A complete technical report dated 20 July 1944 is furnished, but need not be dealt with here. In a technical and engineering sense the matter is complicated. It is being studied by the Genio Civile at this HQ., an officer with special knowledge of hydraulic problems.)

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The point is that the Allied garrison in Cagliari has imposed on itself a strict water rationing system, whilst the local authority has not imposed such a system as yet on the public.

As previously reported, the gas-plants at Cagliari and Sassari remain inoperative through lack of coal and, to a minor extent, lack of repairs and material. Some tramway services in and around Cagliari continued, but they may have to be reduced to something even smaller in the near future through lack of certain essential materials.

The closeness of Cagliari City has been slowed down by the departure of military transport (of the Italian Army) to the mainland. Transport generally for engineering and structural materials is becoming progressively worse because vehicles either have no pneumatic tires, or are using old tires that give continual trouble.

As to materials, the Island has sufficient supplies of cement, bricks and tiles; a glass factory is under construction now at Cagliari, where certain raw materials are available.

REGIN VII. (Regional Engineer Major Chamberlin.)

(a) General.

The new Inspector General 1 of the Genio Civile (Calabria Compartimento) and very active in July in organizing his engineering staff to deal with, and in some cases solve, present restrictions on controlled and critical materials (steel, timber, cement). The recently appointed Minister of Public Works (Signor Mancini) visited Calabria during the month and conferred with the principal Genio Civile officials; he stressed the point that rehabilitation and housing problems, if they are to go ahead, must be restricted to schemes for which there are local supplies of materials.

Captain Brownlee was transferred to Region VIII and in his place Major Chamberlin engaged an Italian engineer who is proving satisfactory. (A constant difficulty is in making arrangements for him for food and lodging, on necessary tours of inspection.)

(b) Highways and Bridges.

No change in military priorities. At the end of July heavy repairs were in progress on 62 km. of road, with minor repairs on 430 km. Six bridges were being rebuilt viz. Angitola, Mesimo, Amato, Petrace, Virtù and at Blaisice. Normal progress on all these except the one at Virtù. Tenders being invited for another bridge. Value of work in hand at end of July on military highways and bridges amounted to 36.5 million lire with disbursements already made 9.5 million lire.

On secondary highways approvals were given to an expenditure of 0.75 million lire, this including two large retaining walls and the widening and improvement of a curve on Route 19. Repairs on the Neto River Valley Road progressed to the point that traffic time was reduced to half of what it was before. Further schemes amounting to over 2 M.L. for secondary roads and bridges were under consideration.

(c) Buildings etc.

Projects numbering 16 were approved, estimated total cost 3.4 M.L. This includes extended accommodation for the prison at Reggio Calabria required by Public Safety Sub-Commission. (This was referred to in the June Report, 192. This included a hospital, school, two government

(a) General.

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Projects numbering 16 were approved, estimated total cost 3.4 M.L. This includes extended accommodation for the prison at Reggio Calabria required by Public Safety Sub-Commission. (This was referred to in the June Report, paras. 6 and 15). Other building works included a hospital, school, two government buildings, one group private houses and two special demolition works.

(d) Anti-Malarial Measures.

This was referred to in para. 15 June report. Excellent results are reported, with cases of malaria much below those of the last 2 years.

(e) Electricity.

Cuts in the allotment of energy for July coupled with extreme drought made the situation serious. In order to stay within the given allotment, drastic measures were taken, viz. refusal of all applications, cutting off power consumers

who had not made application by 14 July and all electrical heating units consuming more than the 200 units per month; cutting off of electricity of various groups of towns for many hours daily.

The Montecatini industrial plant produces hydrogen for the R.A.F., and for this purpose requires about 500,000 units per month. The works also produce super-phosphates, and a little under 2,000 tons of this per month would increase the electrical demand to 1.3 million units monthly.

(c) Materials and Transport.

Demands for cement had not been met except on bridges (military highways) even several weeks after application had been made. The transport situation for structural materials remains even more serious than was indicated in the last part of para. 15, June report. Three trucks taken away by the Italian 21st Army Corps in June were not returned, 5 trucks are completely out of operation due to tire shortage. To cover the great distances in the Region, with its numerous engineering activities, the Regional Engineer reports there are now only 6 trucks available.

15. REGION VIII (Regional Engineer Major Lee, R.E.)

(a) General

Public Works activities were confined to the Fifth Army area and preliminary surveys were made (with approval of Fifth Army A.M.C.) in the Provinces of Livorno, Pisa and Siena. All work done has been subject to Army agreement.

Capt. Stevens (Electrical) replaced Capt. Kaly who was transferred after reporting sick. Capt. Brownlee (Highways) and Lt. Hodges (Public Works) joined the Region in the first week of July.

(b) Highways and Bridges.

Fifth Army A.M.C. asked the Regional Engineer to get the Genio Civile to work on Route 1 (coastal road) and the transverse highways routes 73 and 74. Labour gangs of the Cantieri were re-established. Engineer section of the Fifth Army have taken over responsibility for certain transportation and the supply of stone chippings and bitumen, and also has maintenance of some detours and temporary bridges. No representative of the late A.A.S.S. was found until the 23 July; this official was at once given definite responsibilities, under the Genio Civile. Plans and estimates being prepared for the reconstruction of 3 bridges on Route 74. The Regional Engineer reported that civilian contractors could not complete three other bridges within a short period of 30 days, and so the work was undertaken by the 92nd Engineer Battalion (American).

(c) Public Works.

Reconnaissance were made at 21 towns and essential repairs put in hand, often of a minor but essential nature. Mainly water-supply, sewers, and the clearance

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Recontaminations were made at 21 towns and essential repairs put in hand, often of a minor but essential nature. Mainly water-supply, sewers, and the clearance of debris. Temporary arrangements made for the pumping of water, prior to electricity being made available. The Genio Civile supervising staff found inadequate, and the local head was told by the Regional Engineer to increase the number immediately.

(d) Electricity

No real start could be made on this problem until 17 July when Capt. Stevens arrived. Allocation of available power is being made on first priorities, working in with the Provincial Commissioner and the Supply Officer. There are coal mines at Fivola, and certain mercury mines and others to which electric power is expected to be supplied shortly. Lardarallo (where electricity is generated from natural

steam) and thermo-stations at Piamino and Rosignano after prospects of some supplies. At the first of these turbines and generators and transformers require repair, together with transmission lines. One unit giving 3,000 KW might be ready by 15 August and a similar one by 15 September. The other two had not been fully investigated by the end of the month. The Rosignano plant is required by the Royal Navy for power at Leghorn. Further reports will be submitted.

Close contact was maintained with the Manager of the Soc. Elettrica di Valdarno in Siena, and the Company is being assisted in the re-establishment of Transmisionic lines at various points and in the bringing in of 2,000 KW to Siena City from Narbonne. Small hydro electric plants were being investigated and a sub-station in Siena was under repair.

16. REGION 1A (Regional Engineer Major Spann).

(a) Remarks.

Major Spann (transferred from Region VI) opened an office at the temporary R. of the Region at Orvieto on 14 July. From then to the end of the month he was engaged in collection and study of available data on the Region generally, together with attendance in Rome at the Regional Engineers' meeting on 24 July where additional information was obtained from handbooks and records. The last five days of July were spent "in the field" with Major Ica (Regional Engineer, Region VIII) in order to make contact with A.A.G. Fifth Army officers and to get first hand information as to how best to face various problems as they arise. Similar contacts with A.A.G. Eighth Army to be made early in August.

17. Fifth and Eighth Armies A.A.G.

The following are extracted from preliminary reconnaissance notes, furnished at various times during July:

Fifth Army A.A.G.

(a) On 6 July Capt. Galtner reported that the main water aqueduct supplying Siena City was broken about the middle of June. City on reduced supply since the Repair works well in hand under joint Genio Civile and A.A.G. (Public Works) supervision. Special fittings being cast in a foundry in Siena. Hoped that full supply of water would be available by last week in July. (Very high pressures in aqueduct militated against quick restoration.)

(b) Electric Power Sources at Valdarno near Florence cut by enemy on 27 June. Two transformers of 2,000 KW each, damaged. Telephonic request made to Rome Area Command (Engineer Service) for a power supply over network, or for a motor-generator suitable for Siena.

(c) Report 14 July said that in Montorio repairs to water-supply and main-drains were in hand. Steel works extensively damaged but large stocks of steel might be salvaged.

(a) Remarks.

Major Sparr (transferred from Region VI) opened an office at the temporary B. of the Region at Orvieto on 14 July. From then to the end of the month he was engaged in collection and study of available data on the Region generally, together with attendance in Rome at the Regional Engineers' meeting on 24 July where additional information was obtained from handbooks and records. The last five days of July were spent in the field with Major Leo (Regional Engineer, Region VIII) in order to make contact with A.M.G. Fifth Army officers and to get first hand information as to how best to face various problems as they arise. Similar contacts with A.M.G. Eighth Army to be made early in August.

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(a) On 6 July Capt. Gaitner reported that the main water aqueduct supplying Siena City was broken about the middle of June. City on reduced supply since the Repair works well in hand under joint Civic Civile and A.A.G. (Public Works) supervision. Special fittings being cast in a foundry in Siena. Hoped that full supply of water would be available by last week in July. (Very high pressures in aqueduct militated against quick restoration.)

(b) Electric Power Sources at Valdarno near Florence cut by enemy on 27 June. Two transformers of 2,000 KW each, damaged. Telephonic request made to Rome Area Command (Engineer Service) for a power supply over network, or for a motor-generator suitable for Siena.

(c) Report 14 July and that in Fiesole repairs to water-supply and main-drains were in hand. Steel works extensively damaged but large stocks of steel might be salvaged.

190

Provincial Commissioner reported that important mineral mines in Grosseto Province were practically undamaged except that the electricity supply had been destroyed. Mines producing lignite and pyrites, manganese and copper. Large stocks of raw materials found and quantities of equipment awaiting dispatch to Germany.

A.A.G. Eighth Army.

On 7 July reports received (period up to 30 June only) mentioned towns of

Marisciano and Citta della Pieve. The former with a population of 17,000 was undamaged, but water-supply under repair. At the second there was no electricity and mills were out of operation. On 25 July report received that Arezzo town was about 30% damaged with only 1,500 inhabitants left. No electricity. Water supply repairable to serve lower levels only. Otherwise wells would have to be brought back into use. On 2 August (position up to 22 July) reports stated that bridges would have to be rebuilt in Terni Province on the Civiteto Viterbi Road.

In Arezzo Province the water aqueduct required repairs but the portions of it were still under fire of enemy. Electricity supplies, unlikely for a considerable time, complicates problem of milling grain. In Province of Florence the town of Castel Fiorentino was 20% destroyed, and 20% repairable. Population 15,000 of which only 150 remained in town. Water supplies out of operation and no electric light. In Perugia Province the town of Citta di Castello with a normal population of 35,000 was damaged about 20%, but repairable. Practically whole population remained in the town. No electricity for light or power, or for 3 mills. (This town normally receives electricity from the plant at Terni, destroyed by enemy.)

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L.A. Tracy
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Lt-Colonel, C.E.
Director.

189

HEADQUARTERS

ALLIED CONTROL COMMISSION

Public Works and Utilities Sub-Commission

APO 394

17 July 46

SUMMARY OF ACTIVITIES DURING JUNE 1944.I. Remarks.

(I) The work of the Sub-Commission in June was marked, from the middle of the month, by a change of importance: viz. complete integration of all activities under the respective Regional Engineers. Specialist officers formerly on duty in different parts of Central and Southern Italy, working to a large extent in direct contact with Headquarters, were brought together in the various Regions under a single head, viz. the Regional Engineer. Hence, from the 15 June onwards that officer has under his control such widely diversified engineering projects as highways reconstruction, bridge design and construction, water-works, reclamation schemes and malaria control, gas-works, main drainage, canals and irrigation, buildings and structures generally, works in docks and harbors, and electrical problems with their various specialized features (including systems of rationing power-supplies). No single individual can be an expert in more than one or two of these, but an endeavour has been made to provide each Regional Engineer with a properly balanced "team" so that he may be in a position, though accepting responsibility, to hand over details of the problems confronting him to his various experts. He also has a senior Civil Engineer to assist, and to take executive action.

(II) Pages 2 and 3 of the May Report under the heading "Regions" set out the difficulties of the position as it had existed up to that time, viz. Public Works, both in policy and execution, were developing on wrong lines in certain Regions. There was absence of central control. There was a certain amount of overlapping coupled with divided responsibility and misunderstandings were arising as to whether this, that, or another Specialist Officer was responsible (in whole or in part) to the particular Region where he happened to be employed, or to the Headquarters of the Sub-Commission. The same paragraph of the May report also indicated how and why the position had arisen under which engineering control remained in divided hands. It is unnecessary to deal with that aspect in this report, and it is sufficient to say that early in June the Executive Commissioner approved, in general terms, the proposal of the Director of the Sub-Commission that its activities should, so far as possible, be coordinated and integrated under the various Regional Engineers.

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188

(III) A conference of all Regional Engineers at Headquarters (arranged through Regional Commissioners) was held on 12 June, and was continued on the following day in the form of more individual discussions on current problems. There was full discussion at the meeting. A uniform system of procedure was agreed on as to control of specialist personnel (e.g. general Public Works, electrical, highways and bridges and so on) and as to responsibility for equipment handed over in considerable quantities by the Armed Forces for the special task of rehabilitation of military highways and bridges; also concerning heavy engineering equipment shortly expected from the U.S., which is estimated (as to dead-weight alone) to be of

the order of 3500 to 4000 tons. Maintenance and use of it by the Italian Genio Civile were discussed. Regional Engineers were asked to do everything possible to save the time of the Genio Civile engineers, in their respective Regions, by ensuring that plans, calculations, and estimates are only prepared for projects that (by reason of their nature and urgency) have a chance from the time of their initiation of receiving final sanction.

(IV) As to this the Genio Civile had complained, and with justification, that in recent months Civil Affairs Officers and Provincial Commissioners and in some cases Italian officials of other Departments, had insisted on the preparation of projects in detail merely because they themselves had a particular interest in getting a certain scheme through. A duty is now laid on the Regional Engineer to protect the Genio Civile from this wasteful procedure, and to "screen" the various projects in their early stages after discussing them with the Regional Commissioner on the one hand, and with the appropriate representative of the Armed Forces on the other. By this means only the most essential projects will find their way through Italian channels to the Minister of Public Works for sanction; or, in the case of numerous projects involving the use of controlled or critical structural materials, for final approval at the H.Q. of the Sub-Commission. In the latter case it is customary, needless to add, for the head of the Sub-Commission particularly concerned to be consulted.

(V) A systematised form for the submission of Regional Engineers' monthly reports was worked out, and also uniform procedure for obtaining supplies, plant, and materials. As to the latter, if there are adequate reasons for going ahead with a particular scheme and both labour and materials are available locally, Regional Engineers were instructed to carry on; subject, of course, to an undertaking from the Italian side to finance it. As to controlled materials application will be made on the proper forms (finally dealt with by Industry and Commerce Sub-Commission), whilst the H.Q. of this Sub-Commission will specially requisition materials or plant that may have to be imported. Warning was given that the latter class of imports may take weeks or months to obtain, hence the necessity to look well ahead. Contract forms and documents were standardized, and a miscellaneous number of other questions were clarified, including that of supplemental food rations to contractors' employees engaged on heavy manual work.

Generally the conference, the first of its kind, was of much value and it will be followed by others. The next one has been provisionally arranged for the 24 July, and will probably take place in Rome.

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(VI) Since the date of the new organization (15 June 1944) there has already been a marked change for the better, i.e. a diminution in the mass of detailed work that has had to be dealt with at H.Q., often by senior officers, whose time can now be profitably given to more important matters whether of policy, finance, or of an essentially technical nature. Further, and perhaps of even greater importance, the new system will enable the four senior officers at H.Q. to get away on much more frequent tours of inspection. For too long a period they have, in a way, been "chained to their desks".

Changes indicated in the May report under which Lt. Col. LAPPEN took over control of Public Utilities in addition to his responsibilities in the field of electrical engineering, and Lt. Col. THOMPSON responsibility for military highways and bridges in addition to general public works, are working well and will continue. These officers have two or three specialist engineers at their immediate disposal, available to go out at any time for investigations, or to give assistance to any Regional Engineer requiring them. Another advantage arising from decentralization has also been a diminution in the number of subjects for discussion at frequent meetings with Sig. Tizzano (Director General, Italian Public Works Department) and with the Minister of Public Works.

(VII) The new Minister, appointed in May, is Sig. Mancini and he paid a call on the Director, accompanied by Sig. Tizzano, on the 23 June.

He was then in process of familiarizing himself with the work of his Department, and did not seem to know much about it. This was unfortunate but understandable, and it may be that within a few weeks he will get the same grip of the situation as was achieved by his immediate predecessor, Sig. Tarolanti, who was only in office less than 2 months.

The new Minister appeared to have certain rather vague ideas about altering, or perhaps even reducing, the status and responsibilities of Sig. Tizzano. Secondly, he talked of the possibility of the re-establishment in the near future in Rome of a kind of "Superior Technical Council". Under the former regime, and perhaps even prior to it, this Council was composed of experts dealing with the more intricate engineering problems, according final technical approval to projects of major importance, and also questions of public works policy and finance.

As to the first of these it was made clear to the Minister that for a considerable time Sig. Tizzano, the present Director General, has been of the greatest possible assistance. He is competent, energetic, and has assisted in every possible way. It was made clear that any change in the status of this official would be regretted. As to the second point, the Minister was told that in the present state of his Department, which is only now slowly emerging from a state of complete chaos, the re-establishment of a Superior Council (under whatever name) is unnecessary. He was told that the HQ. of this Sub-Commission does, in fact, take the place of any such Council both in theory and in practice. And that if efficiency is to be restored and urgently needed public works and repairs projects (these needed on a vast scale) are to go ahead expeditiously, we would wish to deal with nobody other than he himself (the Minister) and with Sig. Tizzano.

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The Minister did take energetic action in more than one direction, following the meeting on 23 June. Specific and well-founded complaints, supported by documentary evidence, having been furnished to him concerning the unsatisfactory conduct of certain minor officials, he despatched telegrams dismissing them from service within two or three days.

(VIII) Para 2 of this report gives lists of officers as on the 30 June 1944, together with comments at the end indicating transfers or alterations contemplated. It will be seen that there have been changes since May. Officers shown at H.Q. and on temporary duty

elsewhere, para 2 (a) are reduced, and para (2) is increased, i.e., Regional Staffs.

The numbers shown are 20 and 41 respectively, giving a total of 61 as on 30 June 1944. Personnel questions took up a large amount of time in June, due to the rapid moves of the Armies and advanced planning for the new Regions. (Mr. Grady made it clear at two recent conferences that no additional military personnel can be expected, but there is a possibility that civilian experts may be recruited and sent to Italy.) On the 11 June the Executive Commissioner provisionally allocated, following discussions with the Deputy-Director of the Sub-Commission, a basic minimum of Engineer officers to cover the whole of the 12 Regions together with Rome, i.e., on the assumption that the number then existing might not be increased.

This entailed a drastic reduction in certain Regions that have been long established, almost below the safety margin. A second assumption, laid down by the Executive Commissioner, was that Public Works officers new with A.M.C. 5th and 8th Armies may eventually be available for the staffing of the Regions.

Towards the end of the month (June) officers additional to the two already assigned to Region VIII were being asked for, together with officers for the setting up of Region IX.

Provisionally, the total number of engineer officers is put at 74, with about 60 in the Regions, more or less, and the balance at H.Q.

2. Nominal Roll of Officers.

(A) At Headquarters, and on temporary duty elsewhere:-

Lieut-Colonel L.A. Janny, C.E.
Lieut-Colonel C.E. Rhodes, R.E.

(A) Director, Sub-Commission
(R) Deputy Director, Sub-Commission

Public Works Division.

Lieut-Col. V.S. Thompson, R.C.E.
1st Lt. R.W. Shepherd

(B) Chief, Public Works Div.
(A) Asst. to Chief, P.W. Div.

Major N.W. Hyland
Major C.L. Hasle
Capt. W.R. Gentry

(A) P.W.O. South.
(A) P.W.O. North.

(A) Auditing assignment to
Requisition Div.

Utilities & Adm. Div.

Lieut-Col. W.M. Lapper
Capt. L.W. Laughlin

(B) Chief, Utilities & Adm. Div.
(A) Asst. to Chief, Util. &
Adm. Div.

Major H.W. Westwood

(B) Headquarters.

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Provisionally, the total number of engineer officers is put at 74, with about 60 in the Regions, more or less, and the balance at H.Q.

B. Nominal Roll of Officers.

(A) At Headquarters, and on temporary duty elsewhere:-

(A) Director, Sub-Commission
 (B) Deputy Director, Sub-Commission
 Lieut-Colonel L.A. Jeany, C.E.
 Lieut-Colonel G.E. Rhodes, R.E.

Public Works Division.

Lieut-Col. V.S. Thompson, R.O.E.
 1st Lt. R.W. Shepherd
 Major N.W. Hyland
 Major C.L. Hasle
 Capt. W.R. Gentry
 (B) Chief, Public Works Div.
 (A) Asst. to Chief, P.W. Div.
 (A) P.W.O. South.
 (A) P.W.O. North.
 (A) Awaiting assignment to Requisition Div.

Utilities & Adm. Div.

Lieut-Col. W.M. Lapper
 Capt. I.W. Laughlin

Major H.W. Westwood
 Capt. E.H. Rogers
 Capt. A.E. Preedy
 Lieut. C.W. Atkins
 Major M.O. Wooster
 Major E.J. Barry
 Major V.S. Renten
 Capt. H.J. Rosson
 Capt. R.A. Ryan
 Major E. Larson
 Major R.A. Pell.

(B) Chief, Utilities & Adm. Div.
 (A) Asst. to Chief, Util. & Adm. Div.

(B) Headquarters.
 (A) T/D Rome Region.
 (B) Headquarters.
 (B) Headquarters.
 (A) Elec. Util. Officer.
 (A) HQ., att. P.B.S.
 (A) HQ., att. Palermo.
 (A) T/D Region IV.
 (A) Elect. Util. Officer, South.
 (A) T/D Region IV.
 (A) Elect. Util. Officer.

(B) On present information and subject to correction the following Public Works Officers are permanently assigned to Regions as shown:

Region I. Lt-Col. C.P. Pollock (A) Regional Engineer Officer.

Major D.A. Boyd (B) Public Works Officer.

Major A. Crowther (E) Elec. Util. Officer.

Major W.H. Gantle (B) Highways.

Region II. Major W. Knight (B) Regional Engineer Officer.

Lt. J.W.L. Pitcher (B) Elec. Util. Officer.

Region III. Lt-Col. L.J. Mansley (A) Regional Engineer Officer.

Major L.R. Denning (B) Public Works Officer.

Capt. R.P. Wooder (A) Highways.

Capt. R.N.J. Hibbard (E) Highways.

Capt. E.B. Feldman (A) Highways.

Capt. A.G.A. Seal (B) Highways.

Lt. E.A. Strollis (A) Elec. Util. Officer.

Region IV. Colonel E.J. Edwards (B) Regional Engineer Officer.

Lt-Col. G.de G.E. Findlay (B) Public Works Officer.

Major A.G. Evans (B) Public Works Officer.

Capt. T.F. Spriggs (A) Public Works Officer.

Capt. J.G.C. Wilson-Mantchote (B) Public Works Officer.

Lt-Col. J.E. Dyeth (A) Attached from Rome Region.

Capt. P.R.C. Stephens (B) Attached from Rome Region.

Major A.G. Ferley (B) Highways.

Capt. T.R. Brownlee (A) Highways.

Rome Region. Lt-Col. C.R. Birchett (A) Engineer Officer.

Major A.E. Michel (A) Public Works Officer.

Major G.P. Buckley (B) Public Works Officer.

Major J.C. Rively (A) Public Works Officer.

Capt. D.M. Gaither (A) Public Works Officer.

Lt. E.P. Wade-Brown (B) Elec. Util. Officer.

Region V. Major G.A. Latimer (A) Regional Engineer Officer.

Major J.E. Faden (B) Public Works Officer.

Lt. J.H. Walsh (A) Public Works Officer.

Major J.S. Bennett (B) Elec. Util. Officer.

Major G. Boucher (B) Highways.

Capt. J.L. Lambie (B) Highways.

Capt. R.M. Walker (B) Highways.

Region VI. Major W.M. Spurr (A) Regional Engineer Officer.

Capt. E.E. Smith (A) Public Works Officer.

Region VII. Major E.F. Chamberlin (A) Regional Engineer Officer.

Major P.E.L. Lee (B) Regional Engineer Officer.

Capt. P.L. Kaly (A) Elec. Util. Officer.

(B) P.W. Officer.

Capt. E.B. Palaman (A) Highways.
 Capt. A.G.A. Gaul (B) Highways.
 Lt. F.A. Sorella (A) Elec. Util. Officer.
 Colonel E.J. Edwards (B) Regional Engineer Officer.
 Lt. Col. G. de C.E. Pindley (B) Public Works Officer.
 Major A.G. Evans (B) Public Works Officer.
 Capt. T.F. Springs (A) Public Works Officer.
 Capt. J.S.G. Wilson-Heathcote (B) Public Works Officer.
 Lt. Col. J.B. Brath (A) Attached from Rome Region.
 Capt. F.R.C. Stephens (B) Attached from Rome Region.
 Major A.G. Exley (B) Highways.
 Capt. T.E. Brownlee (A) Highways.

Region IV.

Lt. Col. C.S. Birchett (A) Engineer Officer.
 Major A.E. Michel (A) Public Works Officer.
 Major G.F. Buckley (B) Public Works Officer.
 Major J.C. Rively (A) Public Works Officer.
 Capt. D.M. Gaither (A) Public Works Officer.
 Lt. Col. E.F. Wedge-Brown (B) Elec. Util. Officer.
 Major C.A. Latimer (A) Regional Engineer Officer.
 Major J.E. Edson (B) Public Works Officer.
 Lt. J.M. Walsh (A) Public Works Officer.
 Major J.S. Bennett (B) Elec. Util. Officer.
 Major G. Boucher (B) Highways.
 Capt. J.L. Lambis (B) Highways.
 Capt. R.M. Walker (B) Highways.

Region V.

Major W.M. Spann (A) Regional Engineer Officer.
 Capt. E.S. Smith (A) Public Works Officer.
 Major W.F. Chamberlin (A) Regional Engineer Officer.
 Major P.S.L. Lee (B) Regional Engineer Officer.
 Capt. P.D. Kaly (A) Elec. Util. Officer.
 Lt. L.J. Hodges (B) P.W. Officer.

Region VI.

Remarks.

- (a) Major W.H. Gamble (B) assigned to Region I as Highways Officer.
- (b) Capt. P.N.J. Hibbard, Capt. E.N. Palaman, Capt. A.G.A. Gaul and Capt. E.P. Webster assigned to Region III as Highways Officers.
- (c) Lt. Col. J.B. Brath, Capt. P.R.C. Stephens attached Region IV

pending assignment from Rome Region. Major A.G. Perley and Capt. E.H. Brownlee assigned to Region IV as Highway Officers. Capt. E.H. Rogers attached Rome Region pending assignment.

- (d) Major G. Bouchard, Capt. J.L. Lemke and Capt. R.M. Walker assigned to Region V as Highway Officers.
- (e) Major P.S.I. Lee, Capt. P.D. Kaly and Lieut. L.J. Hodges assigned to Region VIII as Regional Engineer, Elect. Utility Officer and P.W. Officer respectively.
- (f) Capt. R.A. Ryan now assigned this HQ. from Region III.
- (g) Major R.A. Bell (a) reported this HQ. awaiting assignment to this Sub-Commission.
- (h) Major H. Larson, Hydraulic Engineer, loaned to Region IV (Pontino Marshes).

3. Rome.

(I) The position as it stood at the end of May was outlined in Para. 3 of the report for that month. Somewhat conflicting reports were received in the first half of June concerning the condition of engineering services and public utilities, and more particularly water and power supplies (electricity). The latter was emphasized by a special signal from the 5th Army on the 12 June to H.Q. A.A.I., with a copy to A.C.C., stating that they were concerned about the need for a proper system of electrical rationing, i.e. the elimination of power and other users of current not essential to the war effort, so that supplies might be available for military needs, for the functioning of public utilities (e.g. water pumping, sewage pumping, trams and railways) together with certain essential war industries. (The way in which this rationing has been operated for some months in Central and Southern Italy was indicated in Para. 6 of the Sub-Commission's May Report, and in greater detail in the April Report; these may be referred to.)

(II) Accordingly, Lt. Col. Jenny (Director) and Lt. Col. Lapper (Utilities and Administrative Division) together with Sig. Pizzani (Director-General, Italian Public Works) visited Rome between the 18th and 22nd June. There were conferences at the Ministry of Public Works, and at the H.Q. of Rome Region and Region IV. There were also meetings with Lt. Col. Cockerton, the British C.R.B. A certain amount of misunderstanding and overlapping was found to exist concerning executive control of the City's engineer services and public works generally, and an effort was made to arrive at a regular system. A joint control with regard to electric power, water and highways was provisionally arranged as between the engineers for the time being of the Rome Area, A.C.C. and the C.R.B. (British). Since the A.C.C. has positive and clearly defined responsibilities in these matters this arrangement was left as a temporary one, to

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The following matters are of interest:-

(a) Owing to damage to hydro-electric stations and power transmission lines there was a "serious shortage" of electricity. Rome was largely isolated from transmitted supplies, and dependent on one Diesel and two thermal stations (coal, steam-driven) in the City. These provide only about 30,000 KW, or 1/3 of normal requirements. Arrangements are being made to increase output to 40,000 KW by certain inter-connections between boiler-houses at the power plant.

- (d) Initial steps were taken to set up a rationing scheme for power and lighting with a nucleus of specialist officers.
- (e) Region IV engineering staff was reinforced from this H.Q. by specialist officers to deal with water supply problems (outside the City Area), and with problems of land drainage in the Pontine Marshes.
- (f) The Central Electrical Board having moved to Rome, and also H.Q. A.A.L., Lt-Col. Lapper returned permanently to Rome at the end of June in order to take charge of the urgent electrical and other public utility problems.
- (g) Dredgers were sent down to the lower end of Pontine Marshes to clear out blocked waterways, and arrangements made for extensive labour and equipment to repair dykes and embankments.
- (h) Inspections were made of the thermal power stations near the City, but an attempt to inspect the hydro-electric plant northwards at Terni was frustrated because of damaged bridges, both on main and secondary highways.
- (iii) Mention has been made in previous reports of the considerable preparatory effort involved in rebuilding the power transmission line from a point near Minturno, north of the River Garigliano, to Rome. (Refer to Para. 2 of the March Report, Page 7 of the April Report and Para. 6 (g) of the May Report.) On 9 June a decision was arrived at by the Armistice that the transmission line would not be needed, not being regarded now as an urgent military necessity. Work was accordingly suspended, and the large materials-dump that had been established at a point between Naples and Minturno is being held in reserve for other military purposes.

4. Tours of inspection etc.

- (i) The Director of the Sub-Commission twice made arrangements to visit Sardinia in June, but on each occasion it had to be postponed because of change of Minister (Sig. Tarchiani had intended to accompany him) and because of more urgent matters requiring attention consequent on the taking of Rome.
- (ii) In Para. 4 of the last report (May) it was noted that an inspection tour in the middle of that month to Campobasso, Foggia, Bari and Potenza had shown somewhat unsatisfactory progress in the reconstruction of military highways and bridges. Remedial measures mentioned in the last report have produced better results though Sig. Tirzane and his superior engineering staff are still faced with many real difficulties. One thing is certain, and this is said with a full sense of responsibility, viz. a considerable body of civil engineers in the State service, men with high professional qualifications and with many years of specialized

tensive labour and equipment.

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The matter of their salary scales and travel allowances is one wholly for the Italian Government. But it is necessary to put on record, after many months experience, that if nothing is done for them their "esprit de corps", their initiative and keenness, and perhaps even their health will irreparably suffer. Whatever is done by the Italian Government of the present unfortunate substantial scale. Continuance of the efforts that this conditions sets as a strong brake on the efforts to make, towards restoring the Italian Public Works Services to a state of reasonable efficiency.

5. Highways and Bridges (Military Priority Lists) and Public Works.

(i) At the end of May, 15 important bridges on main routes were under construction; and during June, 16 others were approved as to plans and designs, and contracts were let. Preliminary surveys show that an extensive bridge reconstruction program will have to be undertaken in the recently liberated territory east and north of Rome. Shortage of Bailey bridge equipment (portable) with the armies will convert the problem into an extremely urgent one, since these Bailey bridges are continually having to be taken out and removed to areas farther north. Several of the larger bridges mentioned in previous reports, including the large bridge at Benevento, were practically completed in June.

(ii) Peninsular-Base Section handed over to the Sub-Commission an additional 125 miles of State and Provincial highways (of military importance) during the month.

(iii) A short 2-day inspection trip, made by Lt. Col. Thompson and Major Hasic on June 26-27, revealed considerable damage on important roads east and north of Rome. South of Rome, however, Routes 6 and 7 are generally in considerably better condition than might have been expected. With the activation of Regions IV and VIII and shortly Region IX, plus the northward thrust in Region V, highway and bridge responsibilities are increasing rapidly but detailed information is not yet available.

At the end of May quarries under direct operation numbered 8, making contractors independent of Army supplies of roadmaking material. In June another quarry was taken over at Grotta Minarda which will afford supplies for repairs on the important highway through Ariano.

(iv) A principal difficulty for some time has been not that of finding contractors of competence, but to find those with some engineering equipment. In recently liberated areas it is known there are numbers of new firms who can be called on, particularly in the vicinity of Rome. In Region V, where a shortage of

were under construction. Preliminary surveys to plans and designs, and contracts were let. Preliminary surveys show that an extensive bridge reconstruction program will have to be undertaken in the recently liberated territory east and north of Rome. Shortage of Bailey bridge equipment (portable) with the Armies will convert the problem into an extremely urgent one, since these Bailey bridges are continually having to be taken out and removed to areas farther north. Several of the larger bridges mentioned in previous reports, including the large bridge at Benevento, were practically completed in June.

II. Peninsular-Base Section handed over to the Sub-Commission an additional 125 miles of State and Provincial highways (of military importance) during the month.

(ii) A short 3-day inspection trip, made by Lt. Col. Thompson and Major Hasle on June 26-27, revealed considerable damage on important roads east and north of Rome. South of Rome, however, Routes 6 and 7 are generally in considerably better condition than might have been expected. With the activation of Regions IV and VIII and shortly Region IX, plus the northward thrust in Region V, highway and bridge responsibilities are increasing rapidly but detailed information is not yet available. At the end of May quarries under direct operation numbered 8, making contractors independent of Army supplies of roadmaking material. In June another quarry was taken over at Grotta Minarda which will afford supplies for repairs on the important highway through Ariano.

(iii) A principal difficulty for some time has been not that of finding contractors of competence, but to find those with some engineering equipment. In recently liberated areas it is known there are numbers of new firms who can be called on, particularly in the vicinity of Rome. In Region V, where a large amount of work is contemplated, there is a shortage of local contractors as the areas are largely agricultural. It may be necessary to transfer contractors from other places to that area.

(iv) Some Regions, and particularly Region III, have had difficulty in keeping contractors transport supplied with petrol and the problem was intensified by the taking over of 80-300 ten trucks from District 3 (Army) for work on military roads. A similar number also handed over by District 2. They are being operated by the Genio Civile under the Regional Engineers supervision. There have been other administrative difficulties apart

from petrol supplies, but it is expected that they will be overcome shortly. In the meantime it is satisfactory to report that the transport situation is now greatly improved, and Italian personnel are being trained to handle the more valuable equipment expected shortly from the U.S.

(v) Midway needs continue to be served to their men by contractors, under the special arrangements made. The new supplementary ration cards are being generally used.

(vi) Up to the end of May the total value of contracts let was about 250,000,000 lire (as then reported), and by the end of June the figure had risen to nearly 350,000,000 lire. This included over 6,000,000 lire of miscellaneous work, distinct from highways and bridges.

Additional Details

(vii) Para. 15 (A) of the May report noted that a more simplified system of returns from the Genio Civile had been arranged, monthly in arrears. They have some the best they can under the circumstances. Communications are poor, there is shortage of experienced personnel, and recent disorganization if not generalisation of the whole Service has even now only reached a state of "early convalescence". Returns submitted at the end of May, covering a 6 weeks period from 16 March to 30 April, dealt with only 5 provinces in Central Italy and two in north Italy. For the latter area considerable information from 3 provinces was missing, and also from Sicily and Sardinia. The following brief summary covers, therefore, only part of a much larger whole. A percentage probably not exceeding 25%. Nevertheless, even with its limited usefulness, it is interesting to note that:

(viii) In the 7 provinces of Naples, Avellino, Benevento, Campobasso, Foggia, Potenza and Reggio there were some months ago 540 road interruptions on State and Provincial roads (the majority of these being outside the classification of "military highways"). These included anything from small or medium sized culverts under the roads, to bridges of complicated construction and with large spans. In the 2 Southern provinces there were 150 such places of which 35 were large bridges, 35 medium, and 90 small (including the culverts). By the end of April 71 had been restored and 29 were in hand, making a total of 100. In the 5 Northern provinces mentioned, there were 490 such places, 98 large span bridges and 41 bridges of medium span (i.e., over 30 feet.) Of the 99 large bridges, 41 were under reconstruction at the end of April together with 90 of the others, a total of 131. At most of the culverts or small bridges temporary diversions or crossing arrangements had been made, those involving no technical problem,

(vii) Para. 15 (i) of the May report noted that a more simplified system of returns from the Genio Civile had been arranged, monthly in arrears. They have come the best they can under the circumstances. Communications are poor, there is shortage of experienced personnel, an recent disorganization if not demoralization of the whole Service has even now only reached a state of "early convalescence". Returns submitted at the end of May, covering a 6 weeks period from 16 March to 10 April, with only 5 provinces in Central Italy in two in South Italy. For the latter area considerable information from 8 provinces was missing, and also from Sicily and Sardinia. The following brief summary covers, therefore, only part of a much larger whole. A percentage probably not exceeding 25%. Nevertheless, even with its limited usefulness, it is interesting to note that:

(viii) In the 7 Provinces of Naples, Avellino, Benevento, Campobasso, Foggia, Potenza and Reggio there were some months ago 640 road interruptions on State and Provincial roads (the majority of these being outside the classification of "Military Highways"). These included anything from small or medium sized culverts under the roads, to bridges of complicated construction and with large spans. In the 2 Southern Provinces there were 150 such places of which 13 were large bridges, 13 medium, and 30 small (including the culverts). By the end of April 71 had been restored and 29 were in hand, making a total of 100. In the 3 Northern Provinces mentioned, there were 430 such places, 39 large span bridges and 41 bridges of medium span (i.e. over 30 feet). Of the 59 large bridges, 41 were under reconstruction at the end of April together with 90 of the others; a total of 131. At most of the culverts or small bridges temporary diversions or crossing arrangements had been made, these involving no technical problem, but the large number still remaining for full repair and reconstruction involve heavy demands on materials and man-power.

(ix) Only 9 of the larger bridges were of steel construction. Of the remainder more than 90% were in iron-wood, and this is being followed in the rebuilding. A small proportion were in reinforced-concrete either in the form of girders or arches, but only 7 have been so rebuilt. In Central Italy, 36 bridges have had

to be reconstructed (temporarily in timber, and 6 in the 3 Provinces in South Italy).

(x) In the 5 Provinces during the 6 weeks period mentioned, 7 large bridges were finally completed, 12 medium ones and 76 of the smaller ones, including culverts.

(xi) On a length of 340 Kms. on 13 state roads in Central Italy, over 18.4 million lire were spent during the 6 weeks period, making a total of 47.3 M.L. since the beginning of the special repair works this year. In Avellino Province, 3.1 million lire had been expended up to the end of April, of which only a small fraction represented bridges. In Benevento Province, 1.5 million lire were spent in total, and nearly 8 million lire during the 6 weeks period; this was on 2.6 Kms. of roads, of which 64 Kms. had been fully reconstructed in Campobasso Province. 3.8 million lire were spent during the period with a total of 8.8 million lire since the works started. Smaller sums were spent in Perugia Province; in Naples Province there was an expenditure during the 6 weeks of 18.6 million lire, nearly all on a total length of 216 Kms. of which 61 Kms. were finished by the end of April. (These figures include work on bridges).

(xii) In the 5 Provinces during the 6 weeks, over 27 million lire were spent on miscellaneous works, including ballastage, and 20 million lire on debris clearance and the demolition of dangerous buildings. About 6 million lire were expended on works of "first aid repairs". By far the greater proportion of these classes of expenditure was incurred in Naples Province. On miscellaneous works 27 million lire were spent during the 6 weeks. Naples Province being responsible for about 25 million lire of this. This sum included over 10 million lire on anti-malaria control measures, 3 million lire on repair works following the Vesuvius eruption, and over 2 million lire on sewers-reconstruction.

(xiii) Since the beginning of the year in the 1 Southern Provinces mentioned, total expenditure was 13 million lire of which 9.4 were spent on bridges.

NOTE: The above details (vii) to (xiii) are only a 25% cross-section of one phase of works in hand, under the general control of Regional Engineers.

expenditure during the 6 weeks of 15.6 million lire, nearly all on a total length of 116 Kms. of which 61 Kms. were finished by the end of April. (These figures include work on bridges).

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6. Remarks.

(i) Including the additional length of roads and bridges already mentioned, limited over by P.E.B. to the Sub-Commission in Italy, there were other long-term limited over by the 5th Army; total 775 miles.

(ii) The Minister of Public Works raised a question as to how far war damage repairs to privately owned properties might go, under proposals to be issued by his Department.

Our views (expressed to him) were to the effect that we saw no reason why these should not go ahead to a reasonable extent (since they were a direct bearing on morale and health) but that their execution must be conditioned by two things:-

- (a) to be confined strictly to "first aid repairs", and
- (b) to items of controlled and original structural materials to be used, e.g. steel, timber, cement, etc., except that in some cases salvaged material may be re-used.

(iii) Difficulty and dangers having been encountered by Regional Engineers, the Conis Civilis, and their contractors through the presence of mines and baby-bombs at various bridges and sites under reconstruction, the Director of Works, R.E., A.A.I. was addressed on the 1st June. To safeguard the position the Chief Engineer, at R.E., A.A.I. (a Major General) was laid down a specific procedure, and this is being communicated to all concerned. In addition Region IV, in a telegram dated 28 June to R.E., A.A.I. stated that both harvesting and public works operations were being hindered by these mines. A letter was accordingly drafted early in July for the Executive Commissioner's signature addressed to all Regional Commissioners (Executive Commissioner's Ref. 436/37/CA) conveying the information supplied, together with diagrams and sketches showing the standards and drawings applicable to minefields.

(iv) During the month Capt. Polman, engaged on highways and bridges with urgent location at Saporin, discovered in certain excavations the remains of a very ancient bridge, which appeared likely to be of historical and antiquarian interest. He communicated immediately with the Commandant and Pine Area Sub-Commissioner who concurred, following an inspection by one of their experts. The full story is in the records of that Sub-Commission, and it is pointing unnecessary to deal with it further in this report. Similar conditions may be found in future operations and Regional Engineers and their staffs are being instructed to enquire particularly in all excavation and foundation operations, and immediately to notify the M. and P. Sub-Commission.

(v) A special technical report was furnished to Executive Section concerning a block of 1730 m. x 30 m. in Naples (locally known as the M.A.T.E.R.) in response to the difficulty about requisitioning by the same (M.E.A.P.) and to allow a certain amount of heavy engineering repairs still to proceed for various transport undertakings in and around the city (viz. State railways, local railways, tram and filibus services.)

(vi) The Public Safety Sub-Commission called for additional accommodation to house over 1200 prisoners, scattered over South Italy. They furnished priority lists and a general indication of their requirements. The scheme concerns four Regions. Plans and estimates are now in preparation under the respective Regional Engineers and Conis Civilis. One scheme has already been started (at Reggio

(iii) Difficultly and danger having been encountered by Regional Engineers, the Genio Civil, and their center share through the presence of mines and body-traps at various bridge and mine under reconstruction, the Director of the 2, H.S., A.A.I. was addressed on the 14 June. To safeguard the position the Chief Engineer, at H.S., A.A.I. (a Major General) was told that a specific procedure, and this is being communicated to all concerned. In addition Region IV, in a telegram dated 28 June to H.S., A.A.I., stated that both harvesting and public works operations were being hindered by these mines. A letter was accordingly drafted early in July for the Executive Commissioner's signature submitted to all Regional Commissioners (Executive Commissioner's Ref. 136/37/61) conveying the information supplied, together with diagrams and sketches also, the standard and it is applicable to minefields.

(iv) During the month Capt. Poldani, engaged on highways and bridges with present location at Guedes, discovered in certain excavations the remains of a very ancient bridge, which appeared likely to be of historical and antiquarian interest. He communicated immediately with the Economic and Fine Arts Sub-Commission who concurred, following an inspection by one of their experts. The full story is in the records of that Sub-Commission, and it is perhaps unnecessary to deal with it further in this report. Similar conditions may be found in future operations and Regional Engineers and their staffs are being instructed to exercise particular care in all excavation and foundation operations, and immediately to notify the M. and P. Sub-Commission.

(v) A special technical report was furnished to Economic Section concerning a block of land near Naples (locally known as the M.A.S.B.R.) to resolve the difficulty about requisitioning by the Army (M.S.B.) and to allow a certain amount of heavy engineering repairs still to proceed for various transport and other services in and around the City (v.l. State railways, local railways, trams and public services).

(vi) The Public Safety Sub-Commission called for additional accommodation to serve over 1200 prisoners, scattered over South Italy. They furnished priority lists and a general indication of their requirements. The schemes under four Regions. Plans and estimates are now in preparation under the respective Regional Engineers and Genio Civil. One scheme has already been started (at Reggio Calabria).

(vii) Referring to Para. 12 (e) of the Sub-Commission's April Report, which gave an outline of the position following the eruption of Vesuvius in March and a proposed expenditure of 570 million lire for remedial measures, the Genio Civil have not yet made up their minds about those parts of the schemes that are of pressing urgency, nor as to the sum of money immediately to be spent. Fuller details are awaited. In the meantime, mostly in April and May, the roads and streams were fully cleared of the deposits of ash and cinders, and also roofs that had been rendered unsafe by reason of the added weight of the deposits.

(viii) The Onyx water scheme, referred to in Para. 1, Page 2 of the Italy Report is well in hand.

(ix) Previous reports mentioned the effort being made to induce the Ministry of Public Works (Genio Civile) to undertake a rational scheme of town planning in various ancient cities such as Herculaneum, Capri and others, and in the industrial and port areas of Naples. It would be regrettable if these places with many narrow streets, and areas unsuited to modern conditions, should be rebuilt in the way they have started for hundreds of years. The problem is a major one, involving as it does innumerable questions of policy, Italian law, financial organization, property rights, and similar things; all these distinct from the purely engineering and structural aspects.

Italy is far behind other countries in this matter, and probably lacks the type of expert (not possessed by most other countries) competent to deal with problems of such complexity. It is recognized that it is no part of the work of A.C.O. nor of this Sub-Commission to do more than make a few remarks, and strictly practical suggestions to the Italian authorities about it. This has been done, but little headway can be made with changing political conditions under which there have been 3 separate Ministers of Public Works in the last few months. Nevertheless, a beginning has been made by way of preliminary surveys showing on certain town-plans those areas that have been completely wrecked, together with other areas 75%, 50% and 25% damaged. This is a first and basic approach to the problem. Plans furnished are being considered, and it is hoped they may form a foundation on which some future Italian Government can take the action that is so desperately needed. We have done no more than attempt to "get the idea into their heads."

Nevertheless, a beginning has been made by way of preliminary surveys showing on certain areas plans that have been completely wrecked, together with other areas 15%, 30% and 25% damaged. This is a first and basic approach to the problem. Plans furnished are being examined, and it is hoped they may form a foundation on which some future Italian Government can take the action that is so desperately needed. We have done no more than attempt to put the idea into their hands."

7. Damage to Public Utilities by Retreating Enemy.

The German practice is to make use of facilities available until the last moment, and then detonate explosive charges which have been placed in position for some time. With the exception of 2 steam-driven electric generating plants within the City of Rome, totalling about 30,000 to 40,000 KW, practically all generating stations both hydro-electric and steam-driven have been destroyed or seriously damaged. It is also their practice to destroy high-voltage sub-station transformers and equipment wherever these are adjacent to the power plants. There have been many instances where the enemy has removed copper-wire conductors and taken the metal away and a considerable number of transmission line towers have been destroyed. Curiously enough, however, aluminum cables have seldom been touched. Destruction by the enemy has usually been very thorough and systematic, the explosive charges being placed by experts familiar with power stations and their most vital spots. In some cases unbroken parts and pieces of equipment will have to be replaced completely. Hydro-electric stations will require complete generating sets, switchboards and cables. Sub-station transformers, oil circuit breakers and related equipment will be needed to control voltages from 150,000 volts downwards. There can be very little mass-ordering or mass-production for most of these things, since each unit or plant must be designed to suit a precise set of conditions, e.g. pressure of water under which plant will operate, volume of water, and many other things. An accurate estimate of the situation would require thorough study by a staff of competent engineers for any period up to 3 months.

The following gives an approximate average of war-damages as observed up to now in Sicily, South Italy and Central Italy:

	By Enemy	By Allied Operations
1. Electric Power & Light	90%	10%
2. Water	70%	30%
3. Gas	50%	50%
4. Main-drainage	50%	50%
5. Public Buildings & Factories	20%	80%

8. ELECTRICAL DIVISION.

(1) A considerable amount of work has been undertaken during the month. Hydro-electrical generating plant mentioned in previous reports has been moved from the Alvo-Belice generating station near Palermo, Sicily, and arrived in Naples on 1 July 1941. This plant is being handed over to District III engineers who will complete the erection at -atase, now that the Eighth Army have moved forward. The plant was dismantled and shipped to the mainland under the supervision of Major RANTON. There was considerable work involved in moving the plant from its location in the hills outside

ry thorough and systematic, the explosive charges being placed by experts familiar with power stations and their most vital spots. In some cases unbroken parts and pieces of equipment will have to be replaced completely. Hydro-electric stations will require complete generating sets, switchboards and cables. Sub-station transformers, oil circuit breakers and related equipment will be needed to control voltages from 150,000 volts downwards. There can be very little mass-ordering or mass-production for most of these things, since each unit or plant must be designed to suit a precise set of conditions, e.g. pressure of water under which plant will operate, volume of water, and many other things. An accurate estimate of the situation would require thorough study by a staff of competent engineers for any period up to 3 months.

The following gives an approximate average of war-damages observed up to now in Sicily, South Italy and Central Italy:

	By Enemy	By Allied Operations
1. Electric Power & Light	30%	10%
2. Water	70%	30%
3. Gas	50%	50%
4. Main-Drainage	50%	50%
5. Public Buildings & Factories	20%	80%

8. ELECTRICAL DIVISION.

(1) A considerable amount of work has been undertaken during the month. Hydro-electrical generating plant mentioned in previous reports has been moved from the Alto-Hellio generating station near Palermo, Sicily, and arrived in Naples on 1 July 1944. This plant is being handed over to District III engineers who will complete the erection at Matese, now that the Eighth Army have moved forward. The plant was dismantled and shipped to the mainland under the supervision of Major REMTON. There was considerable work involved in moving the plant from its location in the hills outside Palermo and making arrangements for transport and shipping the machinery. (Credit is due to Major Ranton and his assistant to ANZIVINO who were successful in having the plant delivered to Naples approximately 3 weeks before the site at Matese was ready.)

(ii) The project for the re-construction of the Naples - Rome transmission line was abandoned. A.C.C. and P.B.S. were to carry out this work and this Sub-Commission has already spent con -

considerable time in arranging for the supply of materials, financing, and supply and feeding of civilian labour. It was discovered however, that the Rome electricity supply, (from the San Paolo and Manto Martin generating stations) was sufficient to meet essential services and as the High Command considered the line was not now a military necessity, the project was abandoned. The material which is in considerable quantity and located in a dump near Naples will be utilised for other transmission lines, as required.

(iii) Arrangements for controlling supplies of electricity throughout Southern Italy are well in hand. Regular meetings are being held with the Italian Government Committees formed for this purpose, with Army Area Commands, and with the many power Companies involved. Regional electrical officers attend all meetings within their areas. More important meetings are attended by an officer from this H.Q. As the dry season has now commenced, it is necessary that a strict control be maintained on all supplies, so that available water in the reservoirs will last until the rainy season commences.

(iv) Meetings of the Electrical Committee of the Local Resources (Italian) Board were attended by Lt. Col. Lapper, who presented in graphical form the position of electricity supplies throughout Southern Italy. It was agreed by that Committee, on the recommendation of Lt. Col. Lapper, that in order to conserve water in the reservoirs the allocation of units should be reduced from 66 million kWh to 54.2 million kWh for the month of July 44. A careful watch on the reservoirs, and all allocation of electricity is accordingly being maintained. It is unlikely that the figure of 54.2 million units per month, the present consumption in Southern Italy, can be exceeded during the next 3 months. This, in effect, means that applications for new consumers, factory loads, etc. can only be accepted by cutting off present consumers on a lower priority.

(v) A meeting of the Anti-Inflation Committee was held during the month which Lt. Col. Lapper attended and presented a report, as outlined above, pointing out that there will not be any additional electricity supplies available for new factories and that these can only come at the expense of existing factories.

(vi) On 18 June Lt. Col. Jenny and Lt. Col. Lapper visited Rome and stayed 3 days (see para. 3 above, details). It was clear that the Rome Region, although they had 3 electrical engineers, required further assistance in order to deal with electricity rationing. Capt. Laughlin of this Sub-Commission proceeded to Rome on 25 June and is now developing a scheme for rationing which will assure supplies being provided for all essential services. Region IV required further assistance on water and main-drainage problems and Major Larson was sent forward on 27 June 44 (at present working in the Pontine Marshes

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An officer of the Sub-Commission attended a conference called by the Economic Section in connection with the production of Sulphur in Sicily, since the sulphur mining operations are largely dependent upon electric power. Assurances were given that power will be available when needed, even if less essential users are curtailed.

WATER.

Rehabilitation of the water supply of CAPUA (which also supplies the S.M.E. and the 2,2,3,7.) - has made good progress. Works in hand under the direction of the Sanio Civile have been practically visited by an officer of this Sub-Commission. It was found necessary to assist the Sanio Civile not its contractors by providing transport for materials.

Approval has been given for work on the restoration of the Sibirio water works, which normally supply 14 Canales (300,000 population) but are at present out of operation owing to demolition of an elevated aqueduct.

GAS.

On account of the coal situation it has not been possible generally to extend production or distribution during the past month; nor has it been possible to restore more gasworks to operation.

Conservation is being given to the maximum possible use of Sardinian coal in gas production; the matter is still under active investigation but it is feared that the further use of Sardinian coal will be so limited as to have little material effect in reducing imports of gas-coal.

PUBLIC UTILITY RATE ADJUSTMENTS - SUMMARY OF POSITION TO 30 JUNE 44

	Applications received for authority to increase charges.	Burdened by (and awaiting) authorised action by Min. of Pub. Affs.	Referred to (and awaiting) authorised action by Min. of Pub. Affs.
Electricity Companies	12	9	1
Water Companies	4	4	
Gas Companies	4	2	2

Note :

Fuller information regarding Public Utilities (electricity, water, gas, and main-drainage) is contained in Regional reports, herewith attached

REGIONAL REPORTS.2. Region I - Sicily.

(1) The head of the Sanio Civile in Sicily has been reported

Consideration is being given to the maximum possible use of Sardinian coal in gas production; the matter is still under active investigation but it is agreed that the further use of Sardinian coal will be so limited as to have little material effect in reducing imports of gas-coal.

PUBLIC UTILITY RATE ADJUSTMENTS - SUMMARY OF POSITION TO 30 JUNE 44

	Applications received for authority to increase charges.	Surcharges authorized	Referred to (and if awaiting action by) Min. of Pub. Wk.	Awaiting this for their date
Electricity Companies	12	9	1	2
Water Companies	4	4		
Gas Companies	4	2	2	

Note:

Fuller information regarding Public Utilition (electricity, water, gas, and main-arrange) is contained in Regional reports, herewith attached

REGIONAL REPORTS.

9. Region I - Sicily.

(1) The head of the Unio Civile in Sicily has been reported for some months as an unsatisfactory official. The new one arrived in Palermo on 3 June, Sig. Russo, and early contacts indicate that he will be a great improvement on his predecessor. Under the revised system of procedure arranged at the Regional Engineer's Conference on 12 June, the Regional Engineer (Lt.Col. Belick) approved a number of smaller projects in Sicily on which only local materials

181

will be used.

(ii) Lists with description, location, and amounts of estimates covering 132 projects in Sicily are furnished. These cover some work going back to last November or December, but the majority of them have been approved and commenced in the last 4 months. The Regional Engineer's staff examined each project in detail before the Genio Civile began work. A considerable proportion are for damage repairs. Repairs to churches have only been carried out in cases where Monument and Fine Arts Sub-Commission have given special approval. Investigation of a new water scheme serving the town of San Catero in Calabria Province was made, including a reservoir. The scheme started as an unemployment relief work. There is an allegation that 4.5 million lire were approved by Lt. Col. Peletti, but there appears to be nothing in writing. The scheme was initiated without the Regional Engineer's knowledge. Actual merits of the scheme appear to be doubtful, and also the question as to where the money is now to come from. Lt. Col. Bolick would have known nothing about it but for the fact that he received (in June) an application for the release of 275 tons of cement. The project has been stopped for further investigation, technical and financial. Money spent to date is about 120,000 lire. Men working on the scheme are again unemployed. The Genio Civile and the Ministry of Finance representatives are now trying to get at the facts. Bridge works and repairs to public buildings in Calabria Province were found to be proceeding satisfactorily.

(iii) In Enna Province contracts were given last autumn for the reconstruction of 59 bridges. The whole programme should be completed by the end of September. There have been delays because numbers of workmen are suffering from malaria. The Provincial Medical Officer has been asked for supplies of quinine, so that the contractors can give regular doses to their workmen. Many rough estimates of cost for various schemes, prepared hurriedly in 1943, have been found to be under estimates. Supplementary estimates are constantly having to be prepared. The Prefect of Enna Province receives about 4 1/2 million lire per month for the relief of unemployment, i.e. by the carrying out of public works. These are done by the Communes. The Genio Civile was unaware of this up to very recently, when it was brought to their notice by the Regional Engineer. The latter considers the system to be a poor one, since there is no competent technical supervision and it is open to many abuses. In the face of some resistance the Regional Engineer took action with the collaboration of the Provincial Commissioner, so that in future this money will be spent under some sort of technical and financial control.

Additionally the Regional Engineer visited also Catania and Syracuse. Work is proceeding normally on bridges and public buildings.

doubtful, and also the question as to where the money is now to come from. Lt. Col. Bolick would have known nothing about it but for the fact that he received (in June) an application for the release of 275 tons of cement. The project has been stopped for further investigations, technical and financial. Money spent to date is about 150,000 lire. Men working on the scheme are again unemployed. The Genio Civile and the Ministry of Finance represent five are now trying to get at the facts. Bridge works and repairs to public buildings in Calabria and Cosenza Province were found to be proceeding satisfactorily.

(iii) In Zona Province contracts were given last autumn for the reconstruction of 59 bridges. The whole program should be completed by the end of September. There have been delays because numbers of workmen are suffering from malaria. The Provincial Medical Officer has been asked for supplies of atabrine, so that the contractors can give regular access to their workmen. Many rough estimates of cost for various schemes, prepared hurriedly in 1943, have been found to be under estimates. Supplementary estimates are constantly having to be prepared. The Prefect of Zona Province receives about 4 1/2 million lire per month for the relief of unemployment, i.e. by the carrying out of public works. These are done by the Communes. The Genio Civile was unaware of this up to very recently, when it was brought to their notice by the Regional Engineer. The latter considers the system to be a poor one, since there is no constant technical supervision and it is open to many abuses; in the face of some resistance the Regional Engineer took action with the collaboration of the Provincial Commissioner, so that in future this money will be spent under some sort of technical and financial control.

Additionally the Regional Engineer visited also Catania and Syracuse. Work is proceeding normally on bridges and public buildings and there are no special difficulties.

(iv) District I (Army) left Catania on June 11. This meant a falling off in the amount of military transport available for public works, but calls of various kinds on the Regional Engineer and his staff may in the future be substantially reduced.

On a length of nearly 40 kms. between Messina and Syracuse 9 1/2 million lire are being spent on special road repairs and nearly 3 million lire on a length of 14 kms. Three new bridge contracts were let.

The disappearance of District I H.Q. has, the Regional Engineer reports, brought about a "marked change in the whole situation". Agent from transport outfitment, lists of provisions may be re-arranged and will be in different hands. The Regional Engineer has, by the end of June, decided not to encourage any further works involving heavy transport of materials, and particularly the use of cement. Concentration of effort will be confined to works, actually in hand.

(v) As noted in previous reports, the Regional Engineer complains of the grave lack of initiative on the part of the Santa Cruz is in not acting for the selves in the requisitioning of vehicles for their own use, and in other ways. During June he succeeded in getting 9 requisitions through various Trofets, a work in which he ought not to have been involved but on which considerable time had to be spent, mainly in overcoming difficulties placed in the way. On 17 June an Army lorry proceeding to Catania and driven by an Italian civilian, employed either by the Campio Civile or one of their contractors, overturned on a corner due solely to reckless driving and excessive speed. Five of the workmen in it were killed and 26 had to be taken to hospital.

(Contract was maintained with the British C.R.P. regarding completion of new bridges, enabling Bailey bridges to be packed up and removed to forward areas.)

(vi) Complete figures given regarding electric power stations in the Island both hydro-electric and steam driven, figures of water power resources in reserve, actual coal consumption 26 May-25 June, and estimates of coal requirements for July, August and September. Details also given of stocks in hand as to petrol, oil and lubricants, summarizing these and expressing the position in 27-hours (units) of Sicily requires about 10 million units of electricity per month, of which 7 millions is obtainable from water-power and 9 million from steam-driven stations. Steam coal is being used to the maximum possible extent at the latter and 1800 tons were used in the 4 weeks period mentioned, together with 3300 tons of imported coal. Stocks of the latter were down to 2400 tons at the end of June. For July, August and September a total of nearly 20,000 tons of imported coal is estimated.

The Palormo (steam-driven) power station was almost fully repaired in June and also Catania station. Both these involved intricate work welding processes and various improvisations, due to shortages of spare parts and materials. The similar power station at Porto Empedocle has been out of action for some time. It is larger than the Palormo one and repairs may be completed by the middle of July. Extensive repairs were completed in June to water-supply tunnels at the San Carlo hydro-electric station, the Catania thermal station having to be switched over to assist during certain hours of the night, the only time during which repairs could be carried out.

24 tons of imported coal daily, but it is not known whether this can be maintained in the absence of a specific allocation of imported coal to Caracas.

The Palermo Gas Works is the only one in the island really in operation, with a daily coal consumption of 35 tons. About 90% of the city area has gas for cooking only, the supply being turned on morning and evening for periods of about 2 hours each.

(ix) The Island Gas Division offered to the Regional Engineer 600 cu. metres of plantings which will considerably ease the timber shortage and enable more timber bridges to be provided. As always, transport is expected to be a "great difficulty". Vehicles lately used on public works schemes have been withdrawn for the transport of wheat, and this will continue for several weeks.

(10. Roadwork II.

The Regional Engineer (Major Wainwright, M.C.) reports that owing to shortage of American and British Engineer Officers, he is arranging to engage two qualified Italian engineers. For the supply of road-making material a large firm of contractors employed by the Genio Civile were operating four quarries, but the output was only 60 tons per day of screenings against a daily requirement of 200 tons. The Regional Engineer found four additional crushers by consulting other firms, and the daily output has now reached 180 tons. Chief Engineer No 2 District was asked to allow a fifth quarry to be opened in a closed area, this was granted with certain restrictions and the quarry will be operating in July. A sixth quarry is also being opened at Alcamuz with two crushers operating from the Army.

The Genio Civile presented a considerable number of road improvement and other schemes for approval, with estimates and complete data. Most of them were rejected on the ground that they have no military importance and supplies of bitumen, labor and equipment can be used to fix better elsewhere. Commenting further on the quarries position and the maintenance of machinery for stone crushing and other purposes, the Regional Engineer, after recommending certain expenditures, states: "This responsibility should have been entered for. It now falls on my shoulders, making things more difficult due to shortage of staff. We are relying on the Italian to do anything expeditiously. On has to go out oneself."

The Chief Engineer No 2 District handed over four more lengths of Provisional Route (military priorities) owing to the changed military situation. On all high-ways previously on the list of military priorities progress in June was good. There had been "fresh" releases of bitumen and emulsion, and road services were in general being well maintained by firms of contractors, or gangs of "Centonieri".

Two new bridge contracts were let in June in total value about 10 million lire. Of several other major bridge reconstruction

The Regional Engineer (Major Knight, R.C.) reports that owing to shortage of American and British Engineer officers, he is arranging to employ two qualified Italian engineers. For the supply of road-making material a large firm of contractors employed by the Genio Civile was operating four quarries, but the output was only 50 tons per day of chippings and 2 daily requirements of 200 tons. The Regional Engineer found four additional crushers by consulting other firms, and the daily output has now reached 180 tons. Chief Engineer No 2 District was asked to allow a fifth quarry to be opened in a closed area; this was granted with certain restrictions and the quarry will be operating in July. A sixth quarry is also being opened at Altamura with two crushers obtained from the Army.

The Genio Civile presented a considerable number of proposals for improvement and other schemes for approval, with estimates and complete data. Most of them were rejected on the grounds that they have no military importance and supplies of bitumen, labor and equipment can be used to far better elsewhere. Commenting further on the quarries position and the maintenance of machinery for stone crushing and other purposes, the Regional Engineer, after recounting certain experiences, states: "This responsibility should have been catered for. It now falls on my shoulders, making things very difficult due to shortage of staff. We are relying on the Italians to do anything exceptionally. One has to go out oneself."

The Chief Engineer No 2 District handed over four months' length of Provincial roads (military priorities) owing to the changed military situation. On all highways previously on the list of military priorities progress in June was 50%. There has been fresh "relaxation" of bitumen and emulsion, and road services were in general being well maintained by firms of contractors, or gangs of "Cantonieri".

Two new bridge contracts were let in June in total value about 72 million lire. Of seven other major bridge reconstruction works in hand, one was finished in June, four were 75% finished and one was reported as delayed owing to shortage of timber for forming the stone-arches. Apart from military highways, works were supervised on Communal and Provincial roads in Brindisi, Bari and Taranto Province.

See. Some of these were undertaken at the official request of the C.R.B.

Details regarding the electric power position in Region II need not be gone into here, but various difficulties are indicated in

in the Regional Engineer's report and these are being dealt with at the H.Q. of the Sub-Com. mission. They concern the opening up of 2 flour mills, 2 other factories and similar places where the harvest has been good. A large paper mill at Legh, in the electric operation of certain railways. To keep these essential things going, in the face of stringently limited supplies of electricity available, is a matter of considerable complexity.

Additionally, it is reported that the application of the electricity rationing Decree by Italian officials and Commanders in Region II is now obligatory. (Remaining measures have already been taken by Lt. Col. Langer, in fact as possible). Over 2100 applications for continued power supplies were received from the provinces of Bari, Brindisi, Lecce and Taranto and these are being carefully screened "so that those consumers whose operation is unessential to the war effort, or to vital civilian needs, can be eliminated.

179

11. Region III.

(i) In June four additional officers were assigned to the Region through the fusion of military highways, bridges, and electrical matters all under the Regional Engineer. Under the two first headings 80 additional projects were brought under him (Lt. Col. Hensley). The area runs from a considerable distance north of Naples, southwards to Battipaglia and outwards to beyond Avellino. In other directions there has been a loss of officers and enlisted men, and in view of additional responsibilities the Regional Engineer considers that on balance he is in a worse position (from a personnel standpoint) than he was before. Apart from Region I (Sicily) where there are many works in progress but of a different type and with less degree of urgency, Region III is perhaps the most heavily worked of the Regions at present from a Public Works and Utilities standpoint. Lt. Col. Hensley made a special inspection of military highways and bridges in his Region immediately he accepted responsibility for them (in the middle of the month). He considered that progress made had been good and he found the highways generally to be "in good condition". Out of 27 bridge projects (ranging in cost from about 1 million to over 6 million lire each) three were almost finished, two more than half finished, and most of the others of smaller size will be finished by August or September. In four cases contracts had just been awarded, and in four cases plans and designs were still in hand. Four of the bridges are of such a size that they are unlikely to be finished till November or December.

(ii) Contracts for ordinary maintenance, heavy reconstruction or resurfacing of military highways numbered 37; 13 of these being in preparation and the rest works actually in hand. Works completed numbered 23. (Contracts range in the majority of cases from about 500,000 lire to 5,000,000 lire with one contract alone 12 1/2 million).

(iii) Two important road-reconstruction works were in hand in Naples, one on the Riviera di Chiaia and the other on the Stella Polara. The first was nearly finished by the end of June, but the second has proceeded more slowly because the Regional Engineer has insisted on Utility Companies (gas, local railways, water, telephones and sewers) being co-ordinated with the road repairs, viz. he has insisted on all these services finishing their underground work prior to the road reconstruction contractor doing his. Within the last few months about 400 projects put forward by the Genio Civile in and around Naples have been approved, ranging from demolition and clearing of debris to the repair of public buildings. Practically all have been started and 35% of them completed. Some of the demolition work has been exceptionally difficult, e.g. the bombed Telephone Building, where very heavy slabs of concrete had to be removed with equipment wholly unsuitable.

(iv) Sewers and main-drainage in Naples City have been dealt with as a first priority work, and their clearance and reconstruction has been rigidly supervised and pushed ahead. The Regional Engineer worked in close contact with representatives of the Public Health Sub-Commission on this work, with the special object of controlling mosquito-breeding and possible malarial infection.

(v) Under the heading Electricity over 650 applications for continued supply were received in total, of which 172 were rejected and 72 were sent to Sub-Commissions of A.C.G. for special consideration and advice. This strict rationing and supervision of each individual application has resulted in a consumption of only about 450,000 units per day on the average, against 550,000 units provisionally allocated. There is a separate allocation covering Salerno, Torre Annunziata and Castellammare

for them (in the middle of the month). Out at the good and he found the highways generally to be "in good condition". Out at the bridge projects (ranging in cost from about 1 million to over 6 million lire each) three were almost finished, two more than half finished, and most of the others of smaller size will be finished by August or September. In four cases contracts had just been awarded, and in four cases plans and designs were still in hand. Four of the bridges are of such a size that they are unlikely to be finished till November or December.

(ii) Contracts for ordinary maintenance, heavy reconstruction or reconstruction of military highways numbered 57; 13 of these being in preparation and the rest works actually in hand. Works completed numbered 13. (Contract range in the majority of cases from about 500,000 lire to 5,000,000 lire with one contract alone 12 1/2 million).

(iii) Two important road-reconstruction works were in hand in Naples, one on the Riviera di Chiaia and the other on the Stella Polare. The first was nearly finished by the end of June, but the second has proceeded more slowly because the Regional Engineer has insisted on Utility Companies (gas, local railways, water, telephones and sewers) being co-ordinated with the road repairs, viz. he has insisted on all these services finishing their underground work prior to the road reconstruction contractor doing his. Within the last few months about 400 projects put forward by the Genio Civile in and around Naples have been approved, ranging from demolition and clearing of debris to the repair of public buildings. Practically all have been started and 35% of them completed. Some of the demolition work has been exceptionally difficult, e.g. the bombed Telephone Building, where very heavy slabs of concrete had to be removed with equipment wholly unsuitable.

(iv) Sewers and rain-drainage in Naples City have been dealt with as a first priority work, and their clearance and reconstruction has been rigidly supervised and pushed ahead. The Regional Engineer worked in close contact with representatives of the Public Health Sub-Commission on this work, with the special object of curtailing mosquito-breeding and possible malarial infection.

(v) Under the heading Electricity over 650 applications for continued supply were received in total, of which 172 were rejected and 72 were sent to Sub-Commissions of A.C.C. for special consideration and advice. This strict rationing and supervision of each individual application has resulted in a consumption of only about 450,000 units per day on the average, against 550,000 units provisionally allocated. There is a separate allocation covering Salerno, Torre Annunziata and Castellammare area, amounting to an average of under 300,000 units per day. A new 5,000 KVA transformer was installed at Torre Annunziata and by the middle of July the electrical load in that area will be considerably relieved. The Ilva industrial plant near Torre Annunziata requires an additional 400 KW, and from July onwards the transformer will enable it to operate on a 24-hour schedule, instead of being allowed to operate only during "off-peak hours".

(vi) Provincial tramways from Naples to Giugliano, Aversa, Trinità, and Albanova have been given permission to operate their routes during the same "off-peak hours". P.S.3. gave permission in June for the Naples tramways to be restored to operation provided heavy military traffic in the City was not interfered with. Extensive areas in the west of the City now have a tramway service. The reopening of these services would not have been possible apart from the strict rationing and conservation

of electric power that has been going on, now for years south, all over Southern Italy. (And so provides its electricity, no. 1. In the amount, from hydro-electric power stations for only in the South.)

(vii) The water-supplying works of Naples is now in fairly good condition, the result of months of continuous work. But accidents and burst pipes occasionally occur. Recently, west of Naples, (important road and military base) is not getting improved supplies through the air trunk main mentioned in previous reports. Another trunk main is in use on the Via Sicilia before and to assist than the former. The work the use of, against the Neapolitan) piping, emergency, and well-known. The work will take months. A continuous to be supplied (refer to para. 9 of the last report) to enable main west of the City, but machinery at the gas works is continually breaking down, following the very heavy bombing to which it was subjected. The plant is of British construction and spare parts can only be got from England which means, under present circumstances, that they are practically unusable. Supplies of gas coal are also a constant difficulty, the controlling authorities for this supplying a strict rationing policy. Early in April, 25,000 colliers were being given limited gas supplies; by 30 June the figure had risen to 35,000.

The Regional Engineer emphasizes his heavy difficulties in trying to assist the Civilian, the Municipality, and the various utility companies with a salary and equipment. Actually he has none at his disposal, and the problem is out of control and equipment. The transportation situation is a plus when it comes to borrowing from any of other sources. The situation regarding types, however, is "dreadful" and a substantial help. The situation regarding the various service since vehicles used by the Utility Companies, by bus services and the various short-hauling service which are practically worn out. As a matter of fact, the situation is now "on old story".

12. Region IV. (Regional Engineer Col. Ziemke).

(1) Shortly after arriving in Rome on 13 June, Dogion IV was notified that Dogion Region would be permanently separated from Dogion IV, this resulting in several personnel changes. Responsibilities of transport and III/OR personnel are reported needing to "waste of effort, time, and lower efficiency". Dogion accused of "lack of interest for permits for vehicles for transport of public works articles etc., proved difficult to handle. Over 150 permits were issued.

(11) Large numbers of roads shown for damage and it is obvious that all bridges cannot be rebuilt before the autumn rains make deviations unworkable. It has suggested we have been asked to have a quick survey made, working on every day basis, of the bridges, a priority list for repairs will then be drawn up. The army was requested to place bridges first (permanent), and having them afterwards without application to the Regional Engineer; it is hoped to arrange for proper satisfaction both in the near future.

"Contributions were made to work and relief road by other labor. On Route 5, five points are being cleared and general patching-up is commenced. On Route 6, five points and repair of some between 40 and 67 kms. distant. A contraption was got to work to remove and repair obstructions. A motor at No. 67 was properly equipped with stone so that it may be usable in bad weather."

(41) The Italian Government have made appointments of Public Works Engineers for Lucca, Livorno, Livorno and Grosseto, and these 4 officials had been contacted and were being given every assistance. The Regional Engineer was a liaison with these officials and had met most of their senior staffs. The army police was not to great extent north of Rome, but the Regional Engineer had

The Regional Engineer Commission has heavy difficulties in trying to assist the Genio Civile, the Municipality, and the various utility companies with an ordinary and assignment. Actually he has been at his disposal, as the problem is one of construction, borrowing from any or other sources. The transport situation is complex from Public Works standpoint, is better than was reported in May. About 80 trucks have been assigned; a substantial help. The situation regarding trucks, however, is "duplication" since vehicles used by the Utility Companies, by his services and the Public service mostly heavy trucks which are practically unusable, as to materials, recurring shortage of cement, bricks, stone and timber is not "an old story".

12. Region IV. (Regional Engineer Col. Martini).

(i) Shortly after arriving in Rome on 13 June, Region IV was notified that Rome Region would be permanently supplied from Region IV, this resulting in several personnel changes. Shortages of transport and 25/32 personnel are reported resulting in "waste of effort, time, and lower efficiency". Long queues of Italian trucks for permits for vehicles for transport of public works materials etc., proved difficult to handle. Over 150 permits were issued.

(ii) Large numbers of roads closed under 5-10-50 and it is obvious that all bridges cannot be rebuilt before the autumn rains when deviations impossible. If all engineers have been asked to have a quick survey made, carrying on over 12 miles damaged. A priority list for repairs will then be drawn up. The army was receiving Bailey bridges from pre-war stock, and moving them from the front to the rear. The Regional Engineer; it is hoped to arrange for repair notification held in the rear. "Contractors" were not to work and reinforced by army labor. Reconstructed bridges were being altered and general patching-repairs recommended. On Route 5, five points east of Rome between 40 and 67 kms. distant, a contractor was set to work to remove and repair obstructions. A detour at Km 67 was properly surfaced with stone so that it may be usable in bad weather.

(iii) The Italian Government have made appointments of Public Works Engineers for Lazio, Abruzzo, Umbria, Marche and Tuscany, and these 4 officials had been contacted and were being given every assistance. The Regional Engineer has a list of 150 names of officials and had met most of their senior staffs. The army policy was not to grant permits to Italian civilians to go out north of Rome, but the Regional Engineer had presented the urgency of getting these sent out into the Province early, and also the directors and engineers of electricity and water companies. In every case Italian engineers had been given clear instructions as to what they were to undertake in the first instance, with special attention to water supplies, shown many of the best June were already using wells and springs but were polluted. In the area of the Trevi Line, these water conditions were particularly bad, and also in Frascati, Suvico, Viminale and Volturno areas. Within 2 weeks water and electric light had been restored at Frascati and some restoration of water supplies (at low pressure) in Lazio.

178

(iv) The Santa Maria Works were "hopelessly damaged". Restoration of the Pontine water supply cost 6 1/2 million lire. At Frosinone, three water supply plants in the town were being organized, feasible by using a small borrowed petrol-driven pump.

The *Stabirio* *Avvolto* served 24 columns and requires only 20 million lire. Restoration work of water supply at *Ando* and *Vatuno* will shortly be in hand. Only one project will forward for repairs to public buildings, viz. offices of *Sanio* *Cirile* at *Littoria*. Restorative amounted to 2 million lire, but "first aid repairs" only will be approved. A letter from A.O.C. H.G. about urgency of paper mills rehabilitation had led to special investigation of the *Sanio* mills. Heavily damaged. "First aid repairs" required may be 12 months and cost 10 million lire. Certain "first aid repairs" suggested to preserve valuable machinery which is intact, but is being damaged by exposure to weather.

(v) "Remission" (material work) in *Littoria* well in hand at the end of June, viz. electrical cables, connecting (and disconnection) and repairs to machinery. Those works are completed by the presence of *Ando*.

(vi) Generally, Regional Engineer reports the volume of water works and electricity restoration in the 3 provinces as "moderate". With building repair work unlimited. As to roads and bridges, in *Littoria* Province there were heavy damage at 200 sites and "irreparable bridges".

(vii) Information given as to public utilities with the remark that no restoring of electricity has yet been started; urgently needed, on a similar line to that established in *Littoria* and over South Italy generally. Considered that harvesting operations would be seriously impeded if present policy of causing all current to go to Rome is continued.

(viii) Under the heading Materials and Plant contractors have very limited supplies, particularly tools and equipment. Many former large firms have gone.

(ix) The Regional Engineer gives information about road, rail and water transport and about communications (these will presumably be taken account of by other Sub-Commissions in their monthly reports).

(x) Finally, it is reported that "presence of mines and lack of personnel to remove them, is hindering every operation of restoration".

25. Section V.

Along with responsibility for military highways and bridges, the Regional Engineer (*Dr. J. L. L. L.*) took over 3 officers who had been engaged on that work, in *Littoria* *Perley*, previously in charge, had been transferred. Rapid organization of controlled areas on the Adriatic side of Italy resulted in considerably extended activities. A general reconnaissance of roads in forward areas was made. Latter roads sent and were in much better condition than the in roads north and south. Major *Littoria* *L. L. L.* action of his office to *Perley* and headed an engineer of *Flores* (*Dr. J. L. L.*) to *Ando* so as to be on the site of the more pressing problems. Both in *Perley* and *Sanio* *Providence* road and bridge works are proceeding, but the only communication removal of many of the *Sanio* bridges (partially on routes essential to administration and supply. This means the bridge reconstruction program all the more urgent. In June there was no water, electricity, and gas in *Perley*, following meetings with local Italian officials repair works were started and by the middle of the month the hospital was getting a supply of water. By the end of the month, it was hoped to have stand-put supplies of a few points in the streets of the town. *Perley* *L. L. L.* were destroyed and debris in the streets had to be cleared before the mine could be set at. *Perley* mine clearance also had to be undertaken. In *Perley*, the limited water service had been restored and at this time there was a small supply of gas. Limited supplies of electricity were expected from *Perley* and *Perley* within a few days. Intensive efforts were being made by *Perley* *L. L. L.*

restoration in the Province. In Littoria Province, there were no heavy bridges and "lantern-like bridges".

(vii). Information given as to public utilities with the remark that no rationing of electricity had yet been started, urgently needed, in similar lines to that established in Naples and over South Italy generally. Considered that far-reaching operations would be seriously impeded if present policy of running all current on go to terms is continued.

(viii) Under the heading Materials and Plant contractors have very limited supplies, particularly tools and equipment. Many former large firms have none.

(ix) The Regional Engineer gives information about road, rail and water transport and about communications (these will presumably be taken account of by other sub-Committees in their monthly reports).

(x) Finally, it is reported that "presence of mines and lack of personnel to remove them, is hindering every operation of restoration".

15. Region VI.

Along with responsibility for military highways and bridges, the Regional Engineer (Major Lettieri) took over 3 officers who had been engaged on last work. Major Lettieri, previously in charge, had been entrusted. Rapid expansion of controlled areas on the Adriatic side of Italy resulted in considerably extended activities. A General reconnaissance of roads in forward areas was made. Internal roads and rail most are in such better condition than the main roads north and south. Major Lettieri has formed a section of his office to Pescara and posted an engineer officer (Major Lettieri) to assist so as to be on the site of the more pressing problems. Both in Pescara and Casapenna provinces road and bridge works are proceeding, but the area communicates through a way of the railway bridge (portable) on route essential to administration and supply. This means the bridge reconstruction program all the more urgent. In June there was neither water, electricity, nor gas in Pescara. Following meetings with local Italian officials regular work was started and by the middle of the month the hospital was getting a supply of water. By the end of the month, it was hoped to have stand-post supplies at a few points in the streets of the town. Truck-enters were destroyed and debris in the streets had to be cleared before the mine could be got at. Much mine clearance also had to be undertaken. In Oristano, the limited water service had been restored and at this town there was a small supply of gas. Limited supplies of electricity were expected both at Pescara and Oristano within a few days. Intensive efforts were being made by a number of the Regional Engineer's staff and a small number of Army engineers. Electricity rationing in Pescara Province made some progress, many non-essential users being disconnected. An investigation of material and equipment required by mines at Casapenna (for A.D.C. Mining Div.) was made, and a recommendation of far-ward areas as to electric-power needs.

16. Region VII - Bardonia.

The Regional Engineer (Major W. M. Spence) stated that operations in June had been mainly of a routine nature. From a comprehensive report, the following is a brief summary:-

(a) Conditions in the destroyed city of Cagliari were described in both the April and May reports of this sub-Commission. By the end of June, with the City divided into groups and primitive, it was estimated that the city had been cleared of debris to the extent of 24%. In the particularly military area of the city, clearance had reached 80%. Repairs were being started on some school buildings.

(b) Electricity production at both hydro-electric and steam-driven stations in the island (from 26 May to 25 June) amounted to 10.2 million units. Certain re-arrangements of duty during the dry summer-season to between the two types of power stations were proposed.

(c) After supply conditions are normal throughout the island,

(d) There are certain highways of military importance used by the Allied Forces, mainly in supply airfields. Maintenance is by Italian Army Engineers whilst other highways (Aste, Provincial and Coastal) are under the hand of the Civil. The Regional Engineer works in direct contact with him.

(e) Gas works at Cagliari and Sassari, though undamaged, cannot be operated because of shortage of imported gas-coal.

(f) Certain local tram services in Cagliari have been re-started.

(g) The Head of the Civil Civilis mentioned, Sig. Dezzani, intended to come to the Mainland for a consultation with the new Minister of Public Works early in July, with a view to resolving certain administrative and technical difficulties and developing a general program of public works for Sardinia.

15. Section VII.

The Regional Engineer (Major Chamberlain) reported two changes in the local directing personnel of the Civil Civilis in June; one an Inspector General, and the other a Ing. Capo (Raggio Calabrin). Regional personnel generally have been reduced by approximately 40%, and military transport vehicles under Regional control from 27 to 7. This means that little or no help for public works and highways can now be counted on from that pool of transport. Capt. Iuvellio had been in charge of military highways and bridges with H.Q. at Cagliari since last June. Having been transferred, responsibility is now wholly on Major Chamberlain, who has no assistant. Efforts were being made locally to find one or two competent Italian engineers to assist him.

In Calabria, the Military Highways priority list remained the same. About 300 men were working on 8 special road contracts, whose contracts ranging in amount from about half a million lire to 7 million lire each. Five other contracts were being let, including one for which fresh tenders were being invited owing to the original ones being considered too high. At the end of June heavy repairs were in progress on 40 kms. of road and ordinary repairs work on 420 kms. Bridges at Reggio, Tivoli and Catella were finished in June and four others were in hand at Angitola, Iste and other places. The removal of three land-slides on roads was also being undertaken. Debitale against the special fund of 600,000,000 lire (allocated by the Italian Ministry of Finance last February) contracts let in Region VII (military highways) amounted to over 36,000,000 lire of which 8,000,000 had been actually expended.

Roads with asphalt surfaces are getting into bad condition through lack of

(e) Gas works at Ogliastro and Cassert, though undamaged, cannot be operated because of shortage of imported gas-coal.

(f) Certain local train services in Tagliacozzo have been resorted.

(g) The Head of the Gorio Civile mentioned, Sig. Pansini, intended to use to the Minister for a consultation with the new Minister of Public Works early in July, with a view to resolving certain administrative and technical difficulties and developing a general program of public works for Basilicata.

15. Region VII.

The Regional Engineer (Major Quarantini) reported two changes in the local direction of the Gorio Civile in June; one as important to Sorrento, and the other as important to the Gorio Civile. Regional personnel generally have been reduced by approximately 10%, and military transport vehicles under Regional control from 27 to 7. This means that little or no help for public works and highways can now be counted on from that pool of transport. Capt. Pansini had been in charge of military highways and bridges with H.Q. at Catanzaro since last June. Having been transferred, responsibility is now wholly on Major Quarantini, who has no assistant. Efforts were being made locally to find one or two competent Italian engineers to assist him.

In Calabria, the Military Highway's priority list remained the same. About 500 men were working on 8 special road contracts, these contracts ranging in amount from about half a million lire to 7 million lire each. Six other contracts were being let, including one for which fresh tenders were being invited owing to the original ones being considered too high. At the end of June heavy repairs were in progress on 60 kms. of road and ordinary repairs work on 440 kms. Bridges at Reggio, Pervane and Battola were finished in June and four others were in hand at Asigliola, Ascoli and other places. The removal of three land-slides on roads was also being undertaken. Substantial against the special fund of 600,000,000 lire (allocated by the Italian Ministry of Finance last February) contracts for Region VII (Military Highways) amounted to over 36,000,000 lire of which 8,000,000 had been actually expended.

Roads with asphalt surfaces are getting into bad condition through lack of regular maintenance. Roads in the vicinity of Catanzaro where lumber traffic is usually heavy, need complete resurfacing. On mountain roads there have been many landslides blocking them, and requiring urgent attention. Estimates put forward by the Gorio Civile for repairing some public buildings were approved, including that for the prison at Reggio with extended accommodation - as to this, refer to para. 6 (vi) above. On the work of "Benificenza" (Antismalaria) in Catanzaro, Pervane a large sum of money is employed. The Head of the organization is reported to be very capable, and the Regional Engineer gave him assistance from time to time in obtaining supplies and transport.

Electricity consumption is being curtailed on a regular basis, following decisions of the local Rationing Commissions. Allocations of current by A.E.I. to Region VII is likely to be adequate until September. (Full statistics not yet available)

Curitiba). Dams serving four hydro-electric stations were damaged by floods. One of them is a total wreck, two others are still operating but urgently need repairs; whilst the fourth can be repaired fairly easily. Cement has been requisitioned. Requisite raw material for repairs to the thermal-generating stations at Foz de Iguaçu were refused because this plant consumes a great deal of oil, and has not only a very limited supply of fuel.

One cement plant is operating in the Region in Corrientes Province. It can operate on Guaraní coal at the rate of about 260 tons per month, but requires 30,000 sacks (bags, paper or cotton) per month to package the output.

Trucks are generally in operation throughout the Region. Two projects were approved for newer repairs. One gas-plant in the Region was undamaged, but cannot operate through lack of coal. The transport situation has become most serious. The Genio Civilo originally had 16 vehicles loaned from the Italian Army. Three of them were taken back in June and Registered trucks were (as already noted above) cut down from 27 to 7. Supervising engineers of the Genio Civilo have asked the Regional Engineer to get them passes to ride on freight trains when going out on inspections, since their road transport is so seriously depleted.

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REALLY SURE AND!

Enst. Galtner, Public Works Officer with A.A.O. Fifth Army, reported at the end of June that two Engineer Lieutenants of the Italian Army had been assigned to assist him and had proved to be valuable in investigating conditions found in various advanced area communities concerning water, electricity, and so on. Due to rapid progress made by Fifth Army, emergency works had been possible only in the most urgent cases and on a very temporary basis. As to the public services mentioned, there had been a spirit of willing co-operation amongst Italian officials locally and it provided with an order from someone in authority, and given some materials, they had been found quite capable of going ahead under their own steam. As to water supplies, lack of pipes had been a principal difficulty, but to less than 250 tons of lead had been located by the C.A.O. in Orbassano. This had been promptly "forwarded". Arrangements were made in June for the resupplyment of the Italian Army with disposed containers, and it was hoped that they would soon arrive in Africa.

17. North Region (Lt. Col. C.R. Birchall).

A general statement about conditions in Rome was already been given in para. 3 (city above, i.e. as it was in the middle of June. Region IV Engineer Public Staff had been stationed in Berlin, operating and planning in conjunction with Fifth Army A.M.C. (Field). At the end of May the unit moved to Livorno for one week, and on 5 June to Rome. Meetings with Italian officials were held in the City Hall, the first only 15 hours after the Germans had left.

(1) Many pages of detailed information are furnished regarding the water supply situation, beginning on 5 June when at 5 A.M. the reconnaissance party arrived in the City and went immediately to the offices of the Lerdo Aqueduct, which is the principal supply to the City. The Chief Engineer of the Company was collected from his private house and taken to the office. Within an hour or two, the first metering point in a street was established, with a calorimeter unit for establishing the Lerdo Aqueduct still had 50% of its flow but there was practically no pressure. Large exposures had been damaged at five places at distances up to 21 kms. from here including serious damage at Tivoli and at a bridge carrying the aqueduct over the River Tivoli. The other company supplying the city is known as the AGUA and this controls five smaller aqueducts. Inhabiting the fields one can see the water canals.

(ii) Interconnections between the two proposed systems are arranged to have mutual synchronism, and at an early stage they were co-operating very well. By 12 June one aqueduct siphon and two repaired with all the others is ready. Apart from damages to the aqueducts, the control line at the above had been used, and by June 30 the large (Lafayette) power of numerous other important damaged elements. By June 30 the large aqueducts were all been restored to 50% normal, with 90% of normal in the new system. By the first week in July it was expected that quantities of water would be reasonably adequate and that pressure would be restored almost to normal, provided there were no more bursts in mains of aqueducts, this possibility being, to no small extent, in

TO ALL OF THE SONS OF THE

the salorine content is immediately reduced.

(iii) Such air held and controlled, enters as and taken place in East City reactor. The main throughput gas only had been by the end of June when being rapidly retrieved. Italian control and executive agencies via Ottolenghi and Via Libertina. The presence of the

A general statement about operations in June was already been given to the Staff. (ii) Above, i.e. as it was in the middle of June. Decision by Engineer Public Staff had been postponed in March, etc. etc. and planning in conjunction with staff and on at the end of May the unit moved to Victoria for one week, and on A.A.O. (Fife). Meetings with Italian officials were held in the City Hall, the 5 June to 10th. Meetings with Italian officials were held in the City Hall, the first only 15 hours after the Germans had left. A second one was never empty.

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as to quality of work, should be done with the
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(iii) Detailed report on the progress of the work done in the year.

the Navigation Canal which connects with the Tiber River, situated about 14 miles below Rome, was furnished together with exact details of heavy damage inflicted and with suggestions for first aid repairs and as to salvage of numerous small boats sunk there, in view of the very considerable use to which the port could be put in giving supplies to Rome. In 1939 the port handled 65,000 tons of coal, 20,000 tons of oil, grains and timber, 20,000 tons of timber and 20,000 tons of cement (all imports). The Italians are using this port increasingly from 1936 onwards, imports in the former year being 116,000 tons in total whilst in 1939 they were over 200,000 tons.

(v) Concerning electricity, the general facts have already been noted in para. 2 of this report. The Regional Engineer's report for June contains many pages of detailed technical data which need not be repeated here, except to say that he considers a strict rationing programme is urgently needed and that it must be worked out on such more than a local basis since Rome depends for its supplies on hydro-electric sources considerable distances away. Every effort has been made to operate the two electric companies serving Rome as one power unit, a scheme which had never been taken before. The output of both the companies is in fact controlled now by one "load distributor". A second point in the report of the Regional Engineer is that the two companies could take full responsibility for all operational details. General facts stated, at a meeting of the 11 June with G-4 Fifth Area that he considers it essential to furnish Rome with all the electric power possible, up to 100% of that furnished during the period of the German occupation.

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Lt. Colonel, G.I.
Director.

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[Signature]
L.A. JIMMY
Lt. Colonel, C.E.
Director.

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

SUMMARY OF ACTIVITIES DURING AUGUST 1944

10 Sept. 44

1. General Observation.

(a) Letter No. ES/3 dated 6 Aug. 44 from the Economic Section to this Sub-Commission referred to a Conference held on the 23rd July, at which the Vice-President requested Sub-Commissions to consider their "record of achievement", and be prepared to state "why they have not accomplished more". They were to detail, also, "the various obstacles to progress, and that they had done to surmount them". Stated in this way, in the form of short sentences, the instructions were simple. Compliance with them, however, proved to be far from simple. It meant going back over the whole work of the Sub-Commission through a period of nearly a year, and the re-examination of a large proportion of the information given in consecutive series of Monthly Reports, from November 1943 to the present time. Many other records and documents, bearing on obstacles encountered and the way they had been overcome, also had to be examined. The other part of the task, viz. as to why the Sub-Commission has "not accomplished more", was even more difficult, as to both form and substance. The two parts of the task, as set by the Vice-President, in fact have tended to coalesce into one, i.e. difficulties that were not surmounted became, ipso facto, in themselves particular reasons why an even greater measure of success was not achieved.

That Report has been prepared and submitted. It is lengthy and detailed. It could not be otherwise. Apart from its general conclusions about difficulties and their solution, the Sub-Commission took the trouble to get individual reports from Regional Engineers (now 10 in number) ranging from Sicily to Rome, and from Rome to Viterbo and 17th Regions in the North. These were obtained in order that each Regional Engineer could furnish his own first-hand story. Perusal of those separate reports indicates (with numbers of specific instances) and proves the general conclusions reached, to the effect that obstacles and difficulties always turned on a few principal things, such as the complete disorganization of the Genio Civile (Italian Public Works Department) in the matter of its personnel and offices; difficulty of communications (telephonic, telegraphic and postal) in the early months; almost complete lack of vital important structural material, ranging from steel for bridges to bitumen for road surfacing; and, exceeding all these in importance, an utter lack of transport facilities. By the latter is not

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175

This is the crux of what is meant by "lack of transport". It has been explained, stressed, and reiterated so many times in the Monthly Reports of this Sub-Commission that it is, at the present stage of things, displeasing to have to mention it again. Of all "obstacles to progress" enumerated it can now be stated that, if the Sub-Commission had entered on its duties, a year ago or less, with anything from 250 to 500 lorries or trucks at its disposal, results achieved would have been far more satisfying.

(b) Reorganization.

Reorganization of the work of the Sub-Commission (referred to in some detail in Para. 1 of the Report for July) has continued to work increasingly satisfactorily. It was inaugurated at a meeting of Regional Engineers held in Naples early last June and came into force on the 15th of that month. Similar meetings held in Rome at the end of July and at the end of August served to indicate smooth working. Above all the reorganization scheme, coupled with the holding of regular Regional Engineers' Conferences here at Headquarters, has contributed to a feeling of solidarity, inculcation of a valuable "team spirit", and interchange of ideas. Last, but not least, whilst the Regional Engineer is the responsible representative of the Sub-Commission "in the field", he is also both a liaison and executive Officer in his relationship with the Armies, from whom he is constantly taking over additional tasks; and with the Italian Genio Civile. A main duty, at all times, is also that of acting as Engineering Adviser to his Regional Commissioner, and to Provincial and other Officers within his Region.

(c) Italian Authorities.

Para. 1 of the July Report made reference to the Minister of Public Works (Signor MANCINI) and also to Signor PIZZANO, the Director General of the Genio Civile. This latter appointment is an extremely important one, and we wish to place on record the great assistance that Signor Pizzano has constantly given to the Sub-Commission during the last 9 months, in spite of one or two rather serious illnesses. He has recently brought to our notice the regrettable fact that in August he was subjected to bitter personal attacks on the part of a news-paper published in Naples. The attacks are phrased in caustic and exaggerated language, and it is Signor Pizzano's intention to sue the writer and publisher for libel. In the meantime, the matter being "sub-judice", his position is not too easy. (The facts of the matter, as known to date, are being communicated to the Administrative Section for information.)

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Relations with the Minister continue to be satisfactory. This is used in the strict sense of the term, since anything more might constitute an over-statement. Anything less, on the other hand, might be unfair to him.

(d) Functions.

Since October 1943, when A.C.C. was in North-Africa, there had been no revision of the functions and responsibilities of this Sub-Commission. Under instructions from the Economic Section (letter No. BS/3, dated 3 Aug. 44) the matter was

re-examined in August and a clearer and more comprehensive statement of them was made. Twelve months' experience had revealed that, though the original statement was on sound lines, the time had come to make some modifications and additions.

(a) Discussions.

In meetings with the Minister on the 18th and 31st of August matters such as the following were taken up:-

- Genio Civile (General organization).
- Non-dismissal of Cantieri's gangs.
- Firms of contractors with bad records (lists).
- Sardinia (responsibility).
- Position of A.A.S.S. (dissolved)
- High costs of work in certain areas.
- Increased financial powers in Italian territory.
- Increased financial powers in re-housing.
- Italian Commission on re-housing.
- The volcanic eruption (Projects for preventing landslides.)
- Defascism.

(i) As to Sardinia, the Sub-Commission has had for some time only one Engineer Officer in the Island. Due to demands for staff in the Northern Regions that officer is being transferred on the 15th September, so that all responsibility for Public Works and Utilities in the Island will devolve on Italian agency. The Minister expressed his pleasure at the change, and the confidence that it demonstrated of the been since arranged, therefore, that the Provveditorato of the Genio Civile, stationed at Cagliari, will act as Adviser mentioned take full responsibility and will act as Adviser to the Regional Commissioner in place of the Allied officer who is being withdrawn. It has been made clear that the arrangement is in the nature of an experiment, and a somewhat important one. If it proves successful and if, as promised, certain regular reports are furnished to the Sub-Commission by the Provveditorato, it may be possible later to take the same course in Sicily.

(ii) Turning to the A.A.S.S. (Azienda Autonoma Strade Statali), though this was legally abolished a short time ago, as a separate roads and bridges organization, there have remained here and there some unsatisfactory legacies, e.g., certain officials of the A.A.S.S. have given trouble; they were formerly largely independent, but are now subject to the instructions of the Minister and his Director General. In Rome, and perhaps in other places, administrative offices of some, and perhaps in other places, causing certain overlapping

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(iii) The Minister welcomed the grant of more financial powers regarding projects in Italian territory, viz. schemes costing up to 500,000 Lire need not, from now onwards, be submitted to Regional Engineers for approval so long as non-structural materials only are involved.

(iv) As to re-housing schemes, urgently required in many of the towns in Region IV and elsewhere, the Italian Government proposed in August to set up by Decree a special

Body, in view of the magnitude of the problem. Article 2 of the Draft-decree proposed a first allocation of 1 milliard lire as a credit, in the budget for the present financial year of the Ministry of Public Works. This Decree set up a new organization to handle these housing projects which would take many months to get going and it had other unsatisfactory provisions. It has been agreed that all this work should be carried out by the Genio Civile under the Minister of Public Works, if speed were desired, which we do.

In the meantime, a recent report from Region IV shows that there are at least 27 towns in which anything between 25 and 100% of the houses will be uninhabitable in the coming winter. Of these 27, no less than 14 are inhabitable to the extent of more than 50%.

In August the Sub-Commission examined what purported to be a scheme, on a very small scale, for the re-housing of a fraction of the Cassino population. It was found to be both incomplete and unsound in various essentials, such as lay-out of site, water supply, sewerage and other things. It also proposed the use of materials that are held (in very limited stocks) for strictly military requirements. If the Sub-Commission had endorsed the proposals, as they stood, it would indeed have been guilty of "assisting in the planning and construction of a slum". In the result a revised scheme was submitted, based on suggestions made, and there is a prospect of some thing being done promptly.

For the rest, however, it has been tentatively agreed that housing is required in the following places in varying degree to a total number of :-

Velletri	60	San Giorgio	20	Fondi	20
Valmontone	50	Pignatone	20	Itri	20
Genzano	20	Cassino	120	Fertilia	40
Prascati	40	Piedimonte	40	Elea	20
Tivoli	10	Cisterna	50	Minturno	20
Ausonia	10	Appollia	10	Castelforte	20
		Torreano	40		
				Total	570

(v) Concerning the Vesuvius eruption of last March, which was referred to in some detail in the Sub-Commission's March and April Reports, it was then represented to the Sub-Commission that there might be a serious disaster when the autumn rains come, through landslides coming down from the large new cone on the summit. An expenditure of several hundred million lire was envisaged, but financial approval was refused in the absence of at any rate an outline scheme of the remedial measures proposed. The Minister's Department was dilatory in preparing a scheme, and in spite of the utmost pressure put on the Genio Civile all through the

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Velletri	60	San Giorgio	20	Fondi	20
Valmontone	50	Pignatara	20	Itri	20
Lanuvio	20	Cassino	120	Fornia	40
Genzano	20	Piedimonte	40	Elena	20
Praseati	40	Cisterna	50	Minturno	20
Tivoli	30	Aprilia	10	Castelforte	20
Insania	10	Terracina	40		
					total
					670

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(vi) During August the Minister was absent from Rome for some time, and the Director-General was ill for several weeks and unable to act for him. Dealings had to be carried out through subordinates; not entirely satisfactorily. Apart from matters already mentioned the following were also covered:-

- Financing of projects.
- Bonifiche (Land-reclamation and Anti-Malaria).
- Appointment of Italian engineers (to a pool, ready to move northwards at short notice).
- Raising of sunken ships in ports.
- Posting of Italian electrical engineers to take over specialised duties in Regions, thus relieving Sub-Commission staffs.

(e) Personnel.

Para. 2 of this Report gives a list of Officer Personnel as at 31st August 1944, together with comments indicating transfers or alterations contemplated. Portion (A) shows the HQ. List, whilst portion (B) gives the Regional lists.

The numbers shown are 13 and 43 respectively, giving a total of 62. On the date mentioned there is a deficiency of 12, since the total establishment should be 74.

As stated in Para. 1 (b) of the July Report, personnel and staffing questions continue to take up a large amount of time.

The Sub-Commission's letter dated 27th August 44 to Economic Section again stressed difficulties caused by delays in the carrying-out of transfers from one Region to another. Four examples were noted in the July Report, and the letter of 27th August pointed out another and still more glaring case. On the 1st August the transfer of a certain officer was requested from Region IV to Region V. More than a month later the officer concerned was still in Rome, and apparently still attached to Region IV.

It cannot be emphasised too strongly that these "delaying tactics", which is the only way to describe them, militate strongly against efficiency; more particularly in view of the fact that the Sub-Commission still remains below strength to the extent mentioned.

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Para. 2 of this Report gives a list of Officer Personnel as at 31st August 1944, together with comments indicating transfers or alterations contemplated. Portion (A) shows the HQ. list, whilst portion (B) gives the Regional lists.

The numbers shown are 19 and 43 respectively, giving a total of 62. On the date mentioned there is a deficiency of 12, since the total establishment should be 74.

As stated in Para. 1 (b) of the July Report, personnel and staffing questions continue to take up a large amount of time.

The Sub-Commission's letter dated 27th August 44 to Economic Section again stressed difficulties caused by delays in the carrying-out of transfers from one Region to another. Four examples were noted in the July Report, and the latter of 27th August pointed out another and still more glaring case. On the 1st August the transfer of a certain officer was requested from Region IV to Region V. More than a month later the officer concerned was still in Rome, and apparently still attached to Region IV.

It cannot be emphasised too strongly that these "delaying tactics", which is the only way to describe them, militate strongly against efficiency; more particularly in view of the fact that the Sub-Commission still remains below strength to the extent mentioned.

2. Nominal Roll of Officers.

(A) At Headquarters, and on temporary duty elsewhere:-

Lt. Col. L.A. Jenny, C.E.
 Lt. Col. G.E. Rhodes R.E.

Public Works Division.

Lt. Col. V.S. Thompson, R.C.E.
 1st Lt. R.W. Shepherd
 Major N.W. Hyland
 Major C.L. Hasie
 Lt. Col. C.P. Bolick

Utilities & Adm. Div.

Lt. Col. W.K. Lepper
 Capt. L.W. Laughlin
 Major H.W. Westwood
 Capt. A.E. Freedy
 Major E.J. Barry
 Major V.S. Renton
 Capt. H.J. Rossen
 Capt. R.A. Ryan
 Major H. Larson
 Major R.A. Bell
 Major A. Crowther
 Lieut. J.W.L. Butcher

(A) Director, Sub-Commission
 (B) Deputy Director, Sub-Comm.

(B) Chief, Public Works Div.
 (A) Asst. to Chief P.W. Div.
 (A) P.W.O. South.
 (A) P.W.O. North.
 (A) Awaiting Assign. to Region XI

(B) Chief, Utilities & Adm. Div.
 (A) Asst. to Chief, Util. & Adm. Div.
 (B) Water Gas & Drainage.
 (B) Admin. Officer.
 (A) Elec. Util. O. Generation
 (A) " " Transmission
 (A) T/D Region IV.
 (A) Elect. Util. Officer South
 (A) T/D Region IV
 (A) Elect. Util. Officer
 (B) Awaiting Assign. to Region XI
 (B) Elec. Util. Officer

(E) On present information and subject to correction the following Public Works Officers are permanently assigned to Regions as shown:-

Region I.

Major D.A. Boyd

(B) Regional Engineer Officer

Southern Region

Lt. Col. L.J. Hensley
 Major W. Knight
 Major W.P. Chamberlain
 Capt. R.N.J. Hibbard
 Capt. J. Lambie
 Capt. A.G.A. Seal
 Lt. P.N.H. Stephens
 1st Lt. P.A. Shoolie

(A) Regional Engineer Officer
 (B) Deputy Regional Engr. Officer
 (A) Public Works Officer
 (B) Highways
 (D) Highways
 (B) Highways
 (D) Highways
 (A) Elec. Util. Officer

Lt. Col. C.P. Lelick

Utilities & Adm. Div.

Lt. Col. W.M. Lepper
 Capt. J.W. Laughlin
 Major H.W. Westwood
 Capt. A.E. Preedy
 Major E.J. Perry
 Major V.S. Renton
 Capt. H.J. Roscoe
 Capt. R.A. Ryan
 Major H. Larson
 Major E.A. Bell
 Major A. Crowther
 Lieut. J.W.L. Butcher

(B) Chief, Utilities & Adm. Div.
 (A) Asst. to Chief, Util. & Adm. Div.
 (B) Water Gas & Drainage.
 (B) Admin. Officer.
 (A) Elec. Util. O. Decoration
 (A) " " " Transmission
 (A) T/D Region IV.
 (A) Elect. Util. Officer South
 (A) T/D Region IV
 (A) Elect. Util. Officer
 (B) Awaiting Assign. to Region XI
 (B) Elec. Util. Officer

(P) On present information and subject to correction the following Public Works Officers are permanently assigned to Regions as shown:-

Region I.

Major D.A. Boyd

(B) Regional Engineer Officer

Southern Region

Lt. Col. E.J. Hensley
 Major W. Knight
 Major W.E. Chamberlain
 Capt. R.W.J. Hibbard
 Capt. J. Lambie
 Capt. A.G.A. Sani
 Lt. P.M.H. Stephens
 1st Lt. P.A. Serolla

(A) Regional Engineer Officer
 (B) Deputy Regional Engr. Officer
 (A) Public Works Officer
 (B) Highways
 (B) Highways
 (B) Highways
 (B) Highways
 (A) Elec. Util. Officer

Region IV.

Lt. Col. G. de C. E. Windlay
 Lt. Col. C. R. Birchett
 Major A. G. Evans
 Major G. P. Buckley
 Major A. E. Michel
 Capt. W. F. Loughton
 Capt. W. R. Gentry
 Capt. T. F. Spriggs
 Capt. A. J. Greene
 Lieut. E. I. Wade-Brown

(B) Regional Engineer Officer
 (A) Awaiting Assign. to Piedmont II.
 (B) Public Works Officer
 (A) Public Works Officer
 (A) Public Works Officer
 (A) Public Works Officer
 (A) Highways
 (A) Highways
 (B) Highways
 (B) Elect. Util.

Region V.

Lt. Col. C. A. Latimer
 Major L. R. Dearing
 Major J. O. Rively
 1st Lt. Welsh
 Major J. Z. Foster
 Major J. S. Bennett

(A) Regional Engineer Officer
 (B) Public Works Officer
 (A) Public Works Officer
 (A) Highways
 (B) Elect. Util. Officer
 (B) Elect. Util. Officer

Region VI.

Capt. E. E. Smith

(A) Regional Engineer Officer

Region VIII.

Major P. S. L. Lee
 Lieut. E. J. Hodges
 Capt. T. A. Brownlee
 Capt. P. R. C. Stephens
 Major E. C. Eberle

(B) Regional Engineer Officer
 (B) Public Works Officer
 (A) Highways
 (B) Elect. Util. Officer
 (A) Attached Pendg. assign. to Reg. XI.

Region IX.

Major W. M. Spann
 Major W. H. Gamble
 Major E. H. Richardson
 Capt. R. F. Weeber
 Capt. E. H. Rogers

(A) Regional Engineer Officer
 (A) Public Works Officer
 (A) Attachd. Pendg. ass. to Reg. XI
 (A) Highways
 (A) Elect. Util. Officer

Region XII.

Col. E. J. Edwards
 Capt. E. B. Peelman
 Major A. C. Farley
 Capt. J. E. C. Wilson-Heathcote
 Major M. O. Wooster

(B) Regional Engineer Officer
 (A) Public Works Officer
 (B) Highways
 (B) Highways
 (A) Elect. Util. Officer

Region V.

Lt. Col. C.A. Latimer
 Major L.E. Dending
 Major J.G. Rively
 1st Lt. Walsh
 Major J.B. Foden
 Major J.S. Deardette

(A) Regional Engineer Officer
 (E) Public Works Officer
 (A) Public Works Officer
 (A) Highways
 (E) Elect. Util. Officer
 (E) Elect. Util. Officer

Region VI.

Capt. E.B. Smith

(A) Regional Engineer Officer

Region VIII.

Major F.S.L. Lee
 Lieut. L.J. Hodges
 Capt. T.R. Brownlie
 Capt. P.R.C. Stephens
 Major G.C. Eberle

(E) Regional Engineer Officer
 (E) Public Works Officer
 (A) Highways
 (E) Elect. Util. Officer
 (A) Attached Ferry.
 assign. to Reg. XI.

Region IX.

Major W.M. Spann
 Major W.B. Gamble
 Major E.H. Richardson
 Capt. R.P. Weeber
 Capt. E.H. Rogers

(A) Regional Engineer Officer
 (A) Public Works Officer
 (A) Attached. Pendg. ass. to Reg. XI
 (A) Highways
 (A) Elect. Util. Officer

Region XII.

Col. E.J. Edwards
 Capt. E.P. Feldman
 Major A.C. Parley
 Capt. J.S.C. Wilson-Heathcote
 Major M.O. Woodster

(E) Regional Engineer Officer
 (A) Public Works Officer
 (E) Highways
 (E) Highways
 (A) Elect. Util. Officer

3. Miscellaneous Letters.(a) Cost of Tar Paving (Rupais).

This was outlined in Para. 4 of the July Report, in the form of an approximate estimate, with a reference to a letter to Economic Section dated 5th August 1964, from this Sub-Commission. The total was 2.704 Millions of rupees. Information received in August does not tend to modify that figure, or to reduce it. On the contrary, further and more detailed examination of facilities destroyed, such as large electrical power generating stations, emphasises that the estimate may have been a conservative one.

(b) Genio Civile.

Reference has frequently been made in these Monthly Reports to the reorganisation, lack of experienced personnel, short working hours (Refer to Para 3/a of July Report) and other troubles pertaining to the Genio Civile. These things are still causing delays (e.g. the Vasturus matter mentioned above) and they are also resulting in a poor standard of technical and even arithmetical accuracy in the submission of engineering projects. As an example, a letter from the S.C. dated 14 August to the Regional Engineer, Region IV, was obliged to refer to an important scheme in the following terms:-

"The shockingly careless manner in which the estimate was prepared by the Genio Civile has caused much trouble, and consequently some delay, in this office".

This referred to proposals concerning the River Repido and its tributaries, in the Cassino area. There were not only errors in individual items, but even the totals were incorrect. In the result the original figure of 6.4 Million Lire for the scheme was finally approved, four days later, in the sum of only 3.85 Million Lire. Complaint was lodged directly with the Minister, and as to similar instances of carelessness.

(c) The Minister was advised, in the middle of August by letter, and it had also been previously suggested, that it was proposed "gradually to turn over more functions in Sardinia, Sicily, and South Italy, depending upon the Ministry's ability to undertake such tasks" without going into details here, proposals were given as to a proposed withdrawal of our specialised electrical engineers, and their replacement by Italian specialists in specific Regions. Such substitutes to be required to familiarise themselves, through the Regional Engineer and his staff, with the complex problems now existing in Italy's unfortunate electrical situation. These include

Reference has frequently been made in these monthly Reports to the disorganization, lack of experienced personnel, short working hours (Refer to Form 1/e of July Report) and other troubles pertaining to the Genio Civile. These things are still causing delays (e.g. the Vesuvius matter mentioned above) and they are also resulting in a poor standard of technical and even mathematical accuracy in the submission of engineering projects. As an example, a letter from the S.C. dated 14 August to the Regional Engineer, Region IV, was obliged to refer to an important scheme in the following terms:-

"The shockingly careless manner in which the estimate was prepared by the Genio Civile has caused much trouble, and consequently some delay, in this office".

This referred to proposals concerning the River Rapido and its tributaries, in the Cassino area. There were not only errors in individual items, but even the totals were incorrect. In the result the original figure of 6.5 Million Lire for the scheme was finally approved, four days later, in the sum of only 3.85 Million Lire. Complaint was lodged directly with the Minister, and as to similar instances of carelessness.

(c) The Minister was advised, in the middle of August by letter, and it had also been previously discussed, that it was proposed "gradually to turn over more functions in Sarvinia, Sicily, and South Italy, depending upon the Ministry's ability to undertake such tasks" without going into details here. Proposals were given as to a proposed withdrawal of our specialised electrical engineers, and their replacement by Italian specialists in specified Regions. Such substitutes to be required to familiarise themselves, through the Regional Engineer and his staff, with the complex problems now existing in Italy's unfortunate electrical situation. These include systems of rationing of power, first-aid repairs at many places, methods of "mobilising", present methods of obtaining such replacements and spares as may be available, and so on. Italian specialists coming in to take over responsibility may, or may not, be competent men under normal peace-time conditions. Present problems are wholly different, however, and the officers who are withdrawing have had months of practical experience of them.

(d) There were complaints from Regions I and IV that contractors bills were being unaccountably delayed in payment. The same applied to gangs of the Cantieri (on roads). This has been a recurring difficulty for months. Apart from technical and other mistakes in the submission of estimates and projects, for examination, it indicates a far from satisfactory understanding between the Italian Ministry of Public Works and the Italian Ministry of Finance. (This matter was also referred directly to the Minister.)

(e) The Minister has been asked immediately to increase the fund set up last February of 600 Million Lire (Military Highways and Bridges expenditure) to 1,000 Million.

(f) It was noted in the July Report of the Finance Sub-Commission that in "Liberated Italy" the Italian Government's estimate of Public Works expenditure for May was 57 Million Lire and in June 78 Million. Actual cash disbursements in April were about 61 Million, and in May the same amount. A further statement showed "accrèdimentati" for Public Works as 42 Million Lire in April and 91 Million in May. These figures show the rate at which such expenditure tends to increase, and the increasing momentum of a Public Works program.

(g) The H.Q. Commandant requested a certain bridge to be rebuilt between Rome and the coast, to facilitate rest and recreational activities. A special survey was made and a report rendered.

(h) H.Q.R.R.A. (Observation Mission).

Representatives of U.N.R.R.A. (Observation Mission) visited the Sub-Commission several times in August. Every possible assistance was afforded, and various requests for written reports and details were complied with. In this connection a mild protest should be registered:-

It is somewhat disconcerting, after one has given considerable time to answering questions in an interview, to be asked by the interviewer to give the whole thing in writing. In the last few months there have been many of these "Proving Commissions", from Washington, London, Cairo, and elsewhere. They ask the same type of questions and get the same kind of answers. Few of them seem to have acquired the art of taking notes in the course of an interview and they have no hesitation, apparently, in trespassing on the time of people, perhaps busier than themselves, in asking to have everything twice over, viz. in the course of an interview, and again in written form.

The particular matter here referred to was set out in a letter

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It is somewhat disconcerting, after one has given considerable time to answering questions in an interview, to be asked by the interviewer to give the whole thing in writing. In the last few months there have been many of these "moving Commissions", from Washington, London, Cairo, and elsewhere. They ask the same type of questions and get the same kind of answers. Few of them seem to have acquired the art of taking notes in the course of an interview and they have no hesitation, apparently, in trespassing on the time of people, perhaps busier than themselves, in asking to have everything twice over, viz. in the course of an interview, and again in written form.

The particular latter here referred to was set out in a letter 10th August from Economic Section (Ref.No. E3/35), and a written statement was furnished with this Sub-Commission's letter to Economic Section No. ACO/130/PWU., dated 14th August. 171

(i) Ministry of Supply.

Meetings were attended concerning the possible establishment of an Italian Government Ministry of Supply. The views of the Sub-Commission were put forward, but nothing further has yet been heard of the revised "terms of reference", said to be under preparation.

(j) Statistical Survey.

In connection with the Statistical Survey about to be undertaken in liberated Italy by a special staff, under the orders of the Vice-President Economic Section, a meeting was attended and was followed by a visit to the building where that staff is working, in order to assist in the compilation of appropriate queries.

(k) Salvage.

The question of collection and classification of salvaged materials was mentioned in previous Monthly Reports, and early in June a letter was received from the Deputy Executive Commissioner, A.C.D., stating that after consideration of the relevant factors no action by A.C.D. was contemplated "for the present". Nevertheless, the matter has continued to engage the attention of the Sub-Commission from the standpoint of any possible local and immediate advantage. The Minister of Public Works was told, for example, in August that his Department might make use of timber and other materials found in old or damaged air-raid shelters, for its various re-housing programs. The assumption is that these shelters vest in the Government, and are not private property.

The position under Italian Law as regards disused and semi-derelict materials (steel girders, timber, fittings, etc.) found on bombed and damaged private properties is not exactly known. It is, at any rate, very different from the position in England. There, if a private property is damaged beyond a certain point, and duly certified to that effect, ownership of the available debris and material passes from the individual to the State, and it can immediately be re-used in the public interest where ever it may be most needed.

Here, we understand the position to be that no matter how badly a building may be damaged, ownership of the material still continues to vest in the firm or individual. This is a major handicap to speedy reconstruction and first-aid repairs, even on a limited scale. It may be that the Economic Section, in conjunction with the Legal Sub-Commission, can clarify the matter, perhaps to the extent of asking the Italian Government to frame a Decree, and so amend the existing law.

(l) Sunken ships (Ports)

Concerning salvage of sunken ships, noted in our July Report Para. 4 (e), there was further correspondence in August, through the Navy Sub-Commission. All that can be said at the present juncture is that the line of responsibility has not yet been settled, i.e., between the Allied Navies, the Italian

Commissioner, A.C.C., stating that after consideration of the relevant factors no action by A.C.C. was contemplated "for the present". Nevertheless, the matter has continued to engage the attention of the Sub-Commission from the standpoint of any possible local and immediate advantage. The Minister of Public Works was told, for example, in August that his Department might make use of timber and other materials found in old or damaged air-raid shelters, for its various re-housing programs. The assumption is that these shelters vest in the Government, and are not private property.

The position under Italian law as regards disused and semi-devalued materials (stump gardens, timber, fittings, etc.) found on bombed and damaged private properties is not exactly known. It is, at any rate, very different from the position in England. There, if a private property is damaged beyond a certain point, and duly certified to that effect, ownership of the available debris and material passes from the individual to the State, and it can immediately be re-used in the public interest where ever it may be most needed.

Here, we understand the position to be that no matter how badly a building may be damaged, ownership of the material still continues to vest in the firm or individual. This is a major handicap to speedy reconstruction and first-aid repairs, even on a limited scale. / It may be that the Economic Section, in conjunction with the Legal Sub-Commission, can clarify the matter, perhaps to the extent of asking the Italian Government to frame a Decree, and so amend the existing law.

(1) Sunken ships (Forces)

Concerning salvage of sunken ships, noted in our July Report Para. 4 (e), there was further correspondence in August, through the Navy Sub-Commission. All that can be said at the present juncture is that the line of responsibility has not yet been settled, i.e. between the Allied Navies, the Italian Ministry of Marine, and the Allied Control Commission. (The whole position was outlined in a letter from the Flag Officer Liaison Italy, Allied Control Commission, dated 2nd Sept. 44, to the Commander in Chief Mediterranean, with a copy to this Sub-Commission.)

4. Electric Power (Destruction).

Para 4 (b) of the July Report stated that even after such repairs as may be possible, no less than six-sevenths of the generating plant is destroyed. The Electrical Division of the Sub-Commission concentrated its energies in August on the compilation of very complete data and reports. These are of such extreme importance that they are attached hereto in the form of 2 appendices, marked (A), and (B). The more important one is Appendix (A) which furnishes an overall description of the critical position in Central Italy. Appendix (B) deals with Southern Italy.

No attempt is made here to summarise them, save to the following extent:-

- (i) Dissolution of the Central Electricity Board in July has trebled the work of the Electrical Division of this Sub-Commission.
- (ii) Out of 60 large hydro-electric stations 30 are totally destroyed and beyond repair; 14 can be partially repaired in 12 months; and 16 in 6 months (possibly).
- (iii) The Electrical Reconstruction Committee has recommended the importation of a 60,000 KW. Generating Plant.
- (iv) This might save 90,000 tons of shipping per month, if large factories can be re-started in Italy.
- (v) The Italian Government have agreed to pay.

Action has been taken concerning this, which can only be described as an almost desperate situation, by the Vice-President of the Economic Section. Its importance has also been emphasised and re-emphasised at A.F.H.Q. by no less than four special visits to that H.Q., three in August and one early in September, undertaken by the Director of the Sub-Commission and the Chief of the Electrical Division (Lt. Col. Jerry and Layner). Complete additional data was furnished by way of "justification", and all requests of A.F.H.Q. in this connection were complied with.

It is to be recorded at the present juncture, however, that no tangible result has emerged.

Valuable weeks of time have been lost, and from the moment the serious situation indicated was discovered (at the end of July, when the Central Electricity Board was dissolved) the time should have been spent in selecting and having despatched to Italy, from overseas, say, and every kind

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Valuable weeks of time have been lost, and from the moment the serious situation indicated was discovered (at the end of July, when the Central Electricity Board was dissolved) the time should have been spent in selecting and having despatched to Italy, from overseas, any and every kind of emergency substitute that could be obtained. It is useless to begin even to think of the industrial rehabilitation of Italy, even on a most limited scale, unless electricity can be furnished. It is the keynote of the economic life of the country.

5. Regional Engineers' Conference (Rome, 28 Aug. 44)

(a) Regional Engineers or their representatives from all Regions were present, with the exception of Region I. All stressed, as the keynote of their difficulties, the twin problems of getting structural materials, and keeping such very limited truck-transport as they have "on the roads", in order to move materials to where they are required. There were reports that both British and American Units have no compunction about removing (in other words stealing) stacks of stone, chippings, and other things laboriously transported for road and bridge work to remote places. The question of taking over, or controlling in some manner, cement factories and brick or tile work was discussed; in some instances the Armies have ceased to control these in Southern and Central Italy, as the advance has gone on northwards. Regional Engineer VII (now merged in the Southern Region) thought that before long Italian engineers can be left to carry on in Calabria.

(b) Mine clearance remains in very many areas a most serious problem. Casualties tend to be high, even with Units that are well-trained and provided with full detection equipment. In Region IV an Italian Unit for this purpose, and so designated, had arrived early in August. They were under strength and arrived without any training, rations or equipment. Having accomplished nothing at all, at the end of August they were on the point of leaving. Regional Engineers working immediately in the rear of the Armies also report a grave and very natural reluctance on the part of civilian contractors and workmen to undertake quick road and bridge or building rehabilitation, with all these dangers lying about. From a policy point of view it would seem to be right and proper that the Italian Army should, through its engineer units, really get to work. Everybody prefers that this unpleasant work should be done by somebody else, and the Italians (perhaps) would like it all to be done by the Allies. The work lies behind the combat zone, and it is high time that the Italian Army really "set down to it".

(c) If they do not, it will constitute for months, or perhaps for years, a desperate handicap on all works of physical reconstruction and rehabilitation. In areas south of Rome, for example, it is suspected (to the point almost of certainty), that there are still thousands of German mines lying about at the side of roads, near bridges, and in and about demolished buildings in various towns and villages.

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(c) If they do not, it will constitute for months, or perhaps for years, a desperate barrier on all works of physical reconstruction and rehabilitation. In areas south of Rome, for example, it is suspected (to the point almost of certainty), that there are still thousands of German mines lying about at the side of roads, near bridges, and in and about demolished buildings in various towns and villages.

(d) There was a suggestion, further, that a recent decision is to place general responsibility under the Public Safety Sub-Commission.

(e) In Region VIII the organization of the Genio Civile had improved and good work is being done.

6. Bonifiche (Land-reclamation Works).

In August about 48 Million lire was approved by the Finance Sub-Commission, after a delay that had held up the works for several weeks, for a project of rehabilitation on the Pontine Marshes. During the month a Committee was formed representing the Agriculture, Finance, Legal, Public Health and this Sub-Commission, with a view to considering the very large programs to be faced further north, of this kind. At the meeting a University Professor, engaged by the Agricultural Sub-Commission, gave an outline of possibilities in the Po Valley, where problems fifty times bigger than those of the Pontine Marshes may arise if the Germans go on destroying canals, bridges, and pumping stations on the scale they already have done. Not only is the area important from an anti-malarial standpoint, but it also produces enormous quantities of food crops for Italian consumption. Again, apart from these two considerations, silt of the streams and canals flow at levels above that of the surrounding country. If the Germans breach the embankments whole towns and villages may be flooded. There are also problems of a similar kind, but fractional in scope compared to those in the Po Valley, in the Province of Grosseto. In the meantime it is to be noted that Col. Russell (Anti-Malarial Branch, A.C.C.) stated at the meeting that conditions in the Pontine Marshes are now practically "back to what they were in the year 1930".

Information regarding possibilities and probabilities in the Po Valley has been passed, with maps and copies of reports, to the Executive Officers and to the Regional Engineers of Regions IX and XII.

7. Defescion.

This matter was referred to in the July report Para. 3 (3). Continuous pressure is being kept up through the Minister of Public Works to expedite the work of the Italian Commission charged with the duty. The Commission not only has to cover the very large personnel employed by that Ministry, but also numerous large public utility undertakings. The Minister is not inclined to accept the suggestion that more than one Commission should be appointed, in view of the extent and complexity of the work.

In the meantime, on instructions of the Vice-President of Administrative Section, the Deputy-Director of this Sub-Commission will make personal contact with the Commission, which sits at the Ministry of Public Works several days a week (or less often), in order to see how the proceedings are progressing, and to see how the present activity.

bridges, and pumping stations on the scale they already have done. Not only is the area important from an anti-malarial standpoint, but it also produces enormous quantities of food crops for Italian consumption. Again, apart from these two considerations, some of the streams and canals flow at levels above that of the surrounding country. If the German breach the embankments whole towns and villages may be flooded. There are also problems of a similar kind, but fractional in scope compared to those in the Po Valley, in the Province of Grosseto.

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7. Defascism.

This matter was referred to in the July report Para.3 (j). Continuous pressure is being kept up through the Minister of Public Works to expedite the work of the Italian Commission charged with the duty. The commission not only has to cover the very large personnel employed by that Ministry, but also numerous large public utility undertakings. The Minister is not inclined to accept the suggestion that more than one Commission should be appointed, in view of the extent and complexity of the work.

In the meantime, on instructions of the Vice-President of Administrative Section, the Deputy-Director of this Sub-Commission will make personal contact with the Commission, which sits at the Ministry of Public Works several days a week (merely as an observer), in order to see how the proceedings are conducted, and possibly to instill a little greater activity.

8. Public Utilities (Rates to Consumers)

Applications from Gas, Water, Electricity and other Companies to be allowed to increase their charges to consumers are now being channelled through the Ministry of Public Works, so that the primary responsibility will rest on Italian agency, rather than on this Sub-Commission. The duty of the Sub-Commission is thus that of examining the recommendations, and endorsing them in proper cases.

During August the Ministry forwarded two applications from Gas Companies and two from Electricity companies. Three were approved. Nine similar applications were sent to the Ministry in August, 8 of these being from Electricity Companies.

Ever since last February these questions have kept cropping up, and by the month of July about 20 applications had already been dealt with. The drop in the value of the Lira as to its internal purchasing power, coupled with reduced revenues and very heavy war damage bills have put most of these companies into a financial position of extreme seriousness.

708

9. Highways, Bridges, and Public Works.

(a) <u>New Contracts in hand</u>	
(A) Roads and Bridges during month	83
(B) Misc. (Buildings, Provincial projects etc.)	33
(b) <u>Funds expended or obligated</u>	
(A) Highways during month	127,194,000 Lire
(B) Misc. (Buildings, Provincial projects etc.)	58,674,000 "
(C) Total Highways up to Aug. 31	594,412,112 "
(D) Total Misc.	70,102,700 "

(c) Personnel

With the activation of new forward areas Regional Engineer personnel was gradually reduced in Italian Gov't. Territory. Additional Italian Civilian Engineers were employed as replacements. Satisfactory results are being obtained. It will be increasingly important that this trend be continued, so as to give all possible officer strength to critical forward Regions.

(d) Transport

No additional transport was obtained during the month. The W.D. (172) vehicles on loan to Genio Civile and in use in the Southern Region were utilized to the fullest extent on projects of Military importance, but with increasing difficulties in maintenance. It was never possible to have more than 50% available for service at one time, and a total of 20 vehicles were retired during the month as unserviceable.

In Regions IV and V a gratifying number of civilian owned trucks are in operation on construction. It is vitally important, however, that tyres and tubes be made available for these vehicles at an early date. The same applies to motorcars for the use of Italian supervisory Engineers (Genio Civile) and contractors employees.

(a) New Contracts in hand

(A) Roads and Bridges during month 83
 (B) Misc. (Buildings, Provincial projects etc.) 33

(b) Funds expended or obligated

(A) Highways during month 127,194,000 Lire
 (B) Misc. (Buildings, Provincial projects etc.) 58,674,000 "
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(e) Labour

During the month no serious difficulties were encountered in keeping projects manned. Through contractors and Italian Govt. Engineers increasing complaints were received about the inadequacy of wage schedules, but only in the Civitavecchia Area have

✓ projects actually suffered for lack of workmen. Efforts have continued to increase Cantonieri forces - particularly in the Southern areas.

(f) E.O.I.

A new system was instituted during the month whereby bulk P.O.I. coupons will be made available to Regional Engineers for contractors on Military Projects. It is believed that the confusion of past days will be largely eliminated by this system, since this type of project will rightly have preference over all other work. Several vital projects in forward areas were delayed for lack of P.O.I.

(g) Rations (food)

No difficulties were encountered in this matter of mid-day meals, or extra rations for workmen. Contractors are supplementing rations for mid-day meals, and in general a satisfactory meal is being served. This has been confirmed by visual inspections by H.Q. officer personnel.

(h) Bridges (General)

The bridge program has been expanding rapidly and to date a total of 230 bridges have been completed or are under construction. The problem reaches greater magnitude as our activities increase in forward areas, but this is partially offset by the availability of better qualified and better equipped contractors. Progress is satisfactory and on all roads officially turned over to A.C.C. direction by Military Authority; construction is under way on every structure which would constitute a traffic block.

(i) Roads (General)

Throughout the Southern Region, reconstruction and emergency repairs have largely been completed. Route No. 20 from Ponte Calere through Ariano toward Poggiore, which had become almost impassable due to heavy Military traffic, was concentrated on during August and is now in good condition. This was perhaps the most critical section of road on all the A.A.I. priority lists.

Seal-coating, where needed, of all main routes is now under way in the Southern Region, after which our problem will be strictly one of maintenance. Roads throughout the recently liberated Central Italy Areas have withstood the pounding of heavy traffic surprisingly well. All shell and bomb craters have been repaired and maintenance is well in hand. All main

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10. REGION I (Regional Engineer, Major BOYD R.E.)(a) General

It has become apparent during the past month that there is a diminution in importance of the Region from a Military point of view. The departures of H-1 District and I.E.S. confirm this. Nevertheless there are still the Ports of Palermo, Messina & Augusta, used extensively by the Allied Navy. In fact, a letter has been received from the Naval Officer, Messina, soliciting numerous works of repair in the harbours. Reduction in importance from a Military point of view has been rapidly followed by a withdrawal of A.C.C. engineering officers from Sicily.

(b) Staff & Personnel.

Last month this Region reported the withdrawal of Lieut. Hodges from Sicily. This transfer has been followed by the departure of Lt. Col. Bolick, Major Gamble and Major Crowther, and leaves the writer as the only Engineer officer of A.C.C. on the island. It follows that his work has been increased. In order to ease the burden of work it will be necessary to employ civilian engineers. As the terms of engagement are so indefinite, it is difficult to find suitable men. There are few good engineers willing to take on a job even at 100 lire per day, when there is no guarantee that they will be employed for even one month. It might be possible to find youths leaving University who would be glad of anything, but what is wanted for this job are well-qualified men with drive and energy, who must be strictly honest; not an easy thing to find in Sicily.

(c) Tours of Inspection.

The Public Works Officer made a tour of inspection in the Province of Agrigento, with Comm. Guggino, Ispettore del Genio Civile. Works of particular interest were bridges on the S.S. 115. There are four bridges to be reconstructed on the road between Agrigento and Castelvetrano.

1. The bridge over the Garne near Siculiana at Km. 106.

There is a good temporary bridge of gabion piers, and abutments and it will be able to withstand the winter floods. The progress of reconstruction of the new bridge is very disappointing. If the work is not pushed on, it will not be finished before the rainy season.

2. Bridge over the torrent S. Calogero Km. 120.

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2. Bridge over the torrent S. Calogero at Km. 120.

There is a very good temporary bridge constructed by the Army. Contractors are working on the new bridge, which is also behind time.

3. Bridges in the vicinity of Porecoppino at Km. 131.20

This bridge has been seriously damaged by a landslide, and it will have to be demolished and another built instead.

4. Bridge over the Salice.

It was necessary to entrust the work to another contractor as the first one was not moving fast enough. There is a temporary bridge which will serve during the autumn. These provincial bridges were also inspected, and progress was good.

(d) A very large landslide which occurred in the North East side of Agrigento was inspected. There was a section of very heavy retaining wall completely demolished, and a number of buildings were in grave danger of collapse. [Test work is being carried out to ascertain the exact cause of the landslide.]

(e) War damages were inspected in the following towns: Agrigento, Porto Empedocle, Sciacca. The Public Works Officer asked the engineer of the Genio Civile to prepare estimates for all works of demolition, and removal of debris.

(f) A second tour of inspection was made with Major Hyland to the Islands of Ustica, Pevignana and Lipari. [The writer does not propose to go into detail, as Major Hyland has covered this tour in his report. The writer would like to put on record the every excellent cooperation of the Italian Navy in putting the means at Major Hyland's and the writer's disposal to visit these places, on the shortest notice. Such assistance is very rarely encountered.] The prisons of Caltanissetta and Augusta were also visited. This programme of prison repairs and additions is being done at the special request of the Public Safety S.C. here at H.Q.A.C.C.

(g) Military Highways.

The Public Works Officer travelled over all the Military Highways in Sicily this month. Their condition is roughly as follows:-

S.S. 111 Trapani, Palermo, Messina. The tract from Trapani to Palermo is in poor condition, needing resurfacing in many parts. Two bridges are under construction and progress is fair.

From Palermo to Messina the road is fair. Where the Highway passes through Termini Imerese it is in a shocking condition and the same applies to the town of Marsellona. The tract from Liviato cross-road to Messina about 14 Km. is also in a very bad state. There are 26 bridges under construction.

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Details of progress on each bridge are as under:

Ponte Canina.

One arch bridge 20 metres span.

Centoning is being erected. Should be finished at the end of September.

Ponte Piano.

One arch bridge 16 metres span.

Should be finished end of September.

Ponte Macerone.

Centering complete. The work should be finished at the end of September.

Ponte S. Stefano.

5 arch. bridge.

Centering of three arches complete. Work should be finished at the end of September.

Ponte Orsara.

Three arches of 8 metres span.

The centering is ready. Bridge should be completed before the end of September.

Ponte Petrusc.

Single arch bridge 11 metres span.

The arch is finished. Should be completed the beginning of September.

Ponte Gauneto.

Three arches of 11 metres each. The centering is being erected. Should be finished end of September.

Ponte Caronia.

Seven arches of 11 metres each. The centering of two arches erected and the arches are run. The bridge should be finished at the end of November.

Ponte Buzza.

Three arches. The by-pass is not suitable for the winter. The work proceeding very slowly. A very determined effort will be made to have the work well advanced at the end of September.

Ponte Pariano.

Nine arches of 11 metres each. The work is far behind and it will not be finished before the end of December.

Ponte Tusciano.

Two arches of 21 metres span. Will be finished about the middle of October.

Ponte Rossano.

These arches of 11 metres each. The centering is being completed before the end of September.

Ponte Patrucco.

Single arch bridge 11 metres span. The arch is finished. Should be completed the beginning of September.

Ponte Canneto.

Three arches of 11 metres each. The centering is being erected. Should be finished end of September.

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Ponte Turiano.

Nine arches of 11 metres each. The work is far behind, and it will not be finished before the end of December.

Ponte Inganno.

Two arches of 21 metres span. Will be finished about the middle of October.

Ponte Rosmarino.

Centering erected. Work should be finished at the end of September.

Ponte Platani.

Three arches 11.2 metres span. Centering of one arch erected. Should be finished the end of September.

Ponte Zarnullo.

Four arches of 12 metres each. The piers and abutments have been constructed. The centering is being erected. Will be finished about the end of October.

Ponte Tannello.

Single arch of 15 metres. The centering is erected. The bridge should be finished before the end September.

Ponte S. Angelo.

Two arches. Centering ready on the ground. Should be finished during September.

Ponte Zappardino.

Bridge finished.

Ponte Provvidenza.

Two arches. The centering is on the ground. Should be finished about the middle of October.

Ponte Mazzara S. Andrea.

Bridge is finished.

Ponte Meri e Mela.

Three-arch bridge. The centering has been erected and the arches are now being run. Should be finished the middle of September.

Ponte Corricolo.

Three-arch bridge. Centering being erected but the work is very far behind. It will be necessary to have the work finished by the first October, and pressure will be put on the contractors. The by-pass is not suitable for the winter.

Ponte Muro.

Tenders have just been invited but as the work would have to be carried out in the wet season, it is proposed not to start the work until the spring of 1945, as there is an excellent temporary bridge which will be capable of carrying all traffic during the winter.

Ponte Laporcino.

Bridge finished.

Ponte Provvidenza.

Two arches. The centering is on the ground. Should be finished about the middle of October.

Ponte Margara S. Andrea.

Bridge is finished.

Ponte Novi o. Main.

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Ponte Muto.

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Ponte Spadefora.

The work has just been given out. There is a good provisional by-pass.

Ponte Boncorda.

Same remarks as apply to Ponte Muto.

Ponte Tonmarasse.

Same remarks as apply to Ponte Muto.

S.S. 114 Two bridges under construction.Ponte di Fileno.

Three arches. Work is proceeding steadily. There is a gap by-pass which could be used, if necessary, during the winter.

Ponte Minerva.

Two arches are complete, and the work should be finished about the middle of September.

All bridges on S.S. 121 have been completed.

(k) Other Highways.

Estimates for repairs to State Roads other than Military Highways have been forwarded to the Ministry of Public Works for approval, and provision of funds.

(l) Public Works.

A list of work approved locally is forwarded as appendix "A" to this report. Expenditure incurred on Public Works for the months of May June & July is attached as Appendix "B".

(j) Electricity.

It is understood that Major Crowther delivered his report for the month directly to the Sub-Commission.

Since taking over responsibility for electricity the writer has had a number of conversations with key-engineers of the Societa Generale Elettrica, and he hopes to make a tour of all the plants during next month so that he may be "au fait" with the present position.

(k) Materials.

Sufficient materials are available to carry on the present program of work.

(l) Transport.

This has always been difficult, and continue so.

(m) Special Remarks.

The most important function of this department is now to see that the bridge reconstruction program is carried through before the rainy season. All efforts will be made

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15411

(n)

TYPE OF WORK	EXPENDITURE FOR THE MONTHS OF		
	May 1944	June 1944	July 1944
Bridges. Road Resurf. Road Maintenance.	44,618,993	40,074,204	31,878,851
Acqueducts and Water Supply.	1,702,335	1,103,373	1,228,894
Malaria Control.	1,815,709	1,388,954	1,395,080
Sewers	4,454,176	946,929	714,525
Demolitions and Removal of Debris	6,993,225	4,923,297	5,571,375
Schools	2,865,296	3,700,671	1,921,914
Hospitals	1,705,396	2,451,464	1,841,499
Prison and Courts	843,500	372,728	787,932
Buildings	15,819,289	7,134,513	5,228,484
Bldgs Occupied by Allies	997,379	469,011	139,085
Maritime and Light Houses	351,273	328,227	299,651
Arts and Monuments	2,080,222	1,010,978	1,411,407
State Owned Houses	3,132,181	8,548,218	6,705,498
Gas Plant Palerm.	350,000	350,000	50,000
Electric Company	1,100,000	1,200,000	1,100,000

Supply.	1,702,335	1,103,373	1,228,694
Malaria Control.	1,815,709	1,388,954	1,395,080
Sewers	4,454,176	945,929	714,525
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Arts and Monuments	2,080,222	1,010,978	1,411,407
State Owned Houses	5,132,181	8,548,218	6,705,498
Gas Plant Palermo	350,000	350,000	50,000
Electric Company	1,100,000	1,200,000	1,100,000
TOTAL	90,828,974	74,002,567	60,274,195

165

= 21 =

11. REGION II (Regional Engineer, Major KNIGHT)(a) Changes

Work on Highways in Foggia and Campobasso Provinces now comes under direction of Region 2.

Major G. Boucher ceased to control Highways in Foggia Province, and reported back to Rome, for duties elsewhere. Capt. Lambie remains as Roads Officer working in Foggia Province, and retains his office in Foggia.

Lieut. Butcher, Electric Officer, was recalled for another assignment.

(b) Roads.

In connection with the taking over of Military Highways in Foggia and Campobasso Provinces, there was a conference with Major Newby (S.O. Roads 2 District), Major Boucher, Capt. Lambie and the Genio Civile Eng. Foggia, to decide on the needs in plant & transport for necessary main road work in Foggia Province, in the light of the new reduced programme. (It was decided that additional crushers were required to provide sufficient chippings for the Roads Rovino - District Bdy - Ariano. To do this it was decided to close the Carro Quarry, nr. Canosa & transport the two granulators to a river bed on the Povino-Ariano road.

Contractors SICBEP would be instructed to carry this into effect. It was also decided that A.C.C. would take over the work being done by the 334 Wks. Sec. RE. from 15 Km. North of Foggia to Saccione river, and their plant would operate under Gen. Civ. organisation. The plant includes road plant & crushers in the quarry nr. S. Severo, operated by 334 Wks. Sect. Capt. Lambie to see O.C. 334 Wks. Sect. & arrange a date for taking over.]

(c) In order to increase the output of chippings for the Foggia-S. Severo & Foggia-Lucera roads, it was decided to bring two W.D. crushers provided by the Army, from Bari to a quarry situated at Montegrenata, which had been used by the American Air Force Engineers, who were closing down.

After finishing the Cerignola-Canosa road, which should be the end of August, chippings required for the section of the Foggia-R. Ofanto Rd. from Cerignola-R. Cervaro would be transported from the S. Ferdinando Quarry owned by SICBEP in preparation for Seal-Clearing.

(d) It was also agreed that the Genio Civile be instructed to take river-bed stone from either the R. Carapelle or Cervaro, & put on to the verges of the Cerignola-Foggia road which were in a bad state & in view of shortage of stone to use here.

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(e) Ortanova-Divino

This road is no longer required by the Armies. All work has been stopped & contracts cancelled. General maintenance only being carried out.

Route 90 Bdy-Ariano. Patching practically completed. The contract given to the firm of CIAPPARELLI was cancelled on account of prices. The firm SICHEL to do the whole section. They have started seal-coating from Ariano, and have completed 5 Km.

(f) Bridges.

Following arrangements were made respecting Bailey and other Bridges in Foggia Province:-

R. Carapelle. It was proposed to erect a Flambo Steel Bridge before the rainy season. The Genio Civile to build a temporary pier in the center, to support the Flambo Bridge.

R. Tortore - MRJ. 0155. Major Kewby (S.O. Roads, 2 District) reported that the Bailey Bridge would in all probability have to remain until next summer owing to site difficulties. Genio Civile instructed to prepare a design of a new single-span bridge on new alignment just above present bridge, and if possible to get new abutments built this year.

R.S.J. Bridge S of Tortore. MRJ 0254. The Genio Civile instructed to have this replaced by brick-arch before next winter. Also similarly, a timber bridge over R. Serracapriola. MRH 9561.

(g) Military Highways. (General Progress)

Cerignola-Canosa Resurfacing will be finished on 31 August. This would have finished sooner, but for trouble the contractor had with bitumen. An inspection was made on 10 August to look into the trouble; it was found to be due to incorrect handling by his workmen. On instructions from C.Z. 2 District the final sealcoat is to be left till Oct/Nov.

Route 16. Bari-R. Ofanto. Seal-coating of this road from R. Ofanto-Molfetta was completed. C.Z. 2 District expressed his satisfaction at the way the work was executed.

Route 98. R. Ofanto-Terlizzi. Work of seal-coating this road has gone satisfactorily, the firm SABBA having completed 12 Km.

Bitonto-S. Paolo-Pititto Provincial Road. This road 11 Km. was seal-coated this month, and first section Bitonto-S. Paolo treated with emulsion. The first 1 1/2 Km. using an experimental emulsion

Following arrangements were made for the following other bridges in Foggia Province:-

R. Carapelle. It was proposed to erect a Flambo Steel Bridge before the rainy season. The Genio Civile to build a temporary pier in the center, to support the Flambo Bridge.

R. Tortore - MRJ. 0155. Major Newby (S.O. Roads, 2 District) reported that the Bailey Bridge would in all probability have to remain until next summer owing to site difficulties. Genio Civile instructed to prepare a design of a low single-span bridge on new alignment just above present bridge, and if possible to get new abutments built this year.

R.S.J. Bridge S of Tortore. MRJ 0234. The Genio Civile instructed to have this replaced by brick-arch before next winter. Also similarly, a timber bridge over R. Sarnacuriale. MRH 9561.

(g) Military Highways. (General Progress)

Carignola-Ganosa Resurfacing will be finished on 31 August. This would have finished sooner, but for trouble the contractor had with bitumen. An inspection was made on 10 August to look into the trouble; it was found to be due to incorrect handling by his workmen. On instructions from C.E. 2 District the final sealcoat is to be left till Oct/Nov.

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Route 98. R. Ofanto-Terlizzi. Work of seal-coating this road has gone satisfactorily, the firm SABBA having completed 12 Km.

Bitonto-S. Palo-Bitonto Provincial Road. This road 11 Km. was seal-coated this month, and first section Bitonto-S. Palo treated with emulsion. The first 1 1/2 Km. using an experimental emulsion (broken down by Olive oil, this at request of C.E. 2 District.) It was not a success. 164

Bitonto-S. Nicandro-Adelfia-Route 100. To be resurfaced water-bound Macadam. The firm S.A.B.A. started from Bitonto on 9 August, and completed about 3 Km. The firm SASSINELLI started from the Route 100 road towards Adelfia on August 15th, and did 2 Km.

Gravina-Telme. Chippings now being produced at Altamura are being conveyed along this road & also bitumen. The firm ROUNDI are moving to Gravina to start immediately on seal-coating. This road has been taken off the priority list, but C.E. 2 District is allowing work to proceed. General maintenance being carried out satisfactorily on remaining roads.

(h) Provincial Roads.

The Provincial engineers are carrying out various works requested by the Military, to Hospitals & Camps, the following being most important:-

- (Molfetta road to Military Hospital
- (Mellito - Qusani to "
- (Andria roads to "
- (Bari Airport Road.
- (Monopoli internal Roads.
- (Barletta internal Roads.

(i) Bridges.

The progress on the two Bridges over the river Ofanto on Route 15 W. Barletta and Route 58 W. Canosa is proceeding satisfactorily, the rate of progress being up to schedule.

P. Cervaro. Demolition of piers is making good progress.

Santeramo Road Bridge. Route Altamura-Gioia del Colle. Work was started on reconstruction of this bridge, demolition complete, foundations being put in.

Bridges at Gravina, on route 25. Cement has been released this month, and work which was held up for cement has recommenced.

Bridges at Gravina, on Road Gravina-Spinazzola. Opened to traffic this month.

Minervino Bridge. Bridge is now complete except for finishing of parapets; not open to traffic yet.

Bridges in Potenza. Cement has been released this month for these bridges, and work is about to commence on reconstruction.

(j) Quarries.

The Quarry opened up at Altamura at end of last month, & worked by Genio Civile is now working satisfactorily and producing about 60 tons daily. There has been no need to requisition the quarry, the Genio Civile having come to an amicable agreement with the owner to work his quarry on a

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Bridges at Gravina. on route 26. Cement has been released this month, and work which was held up for cement has recommenced.

Bridge at Gravina. on Road Gravina-Spinazzolo. Opened to traffic this month.

Minervino Bridge. Bridge is now complete except for finishing of parapets; not open to traffic yet.

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Two Army crushers were transported from Bari to Poggia Province and installed in a quarry at Montegranate. These are producing about 60 tons daily; the chippings to be transported on to the Foggia - S. Severo Road for seal-coating.

(k) Public Works.

No projects were approved this month. Several were submitted, but they were not approved after investigation. Several the Genio Civile were told to resubmit, cutting out certain controlled materials.

(l) Electricity (Rationing)

The peak loads through the month remained steady. The Provincial Commissions are now co-operating better & seem to be screening the application received in a more satisfactory way.

(m) Contracts.

A meeting was arranged at Ariano on 8 August with the firm CIAPPARELLI of Naples to discuss the prices they were asking to do the work on Route 90 from Ariano-the Dist. Rd. This firm had been brought over from Naples & had already done a certain amount of work.

The prices they asked were considerably higher than those asked by contractors in Bari and Foggia provinces. They were asked to bring an analysis of their prices to the meeting; this they failed to do. They were told their prices were high, in comparison with other contractors. They stated they were not prepared to reduce them, and that they had been given those prices in the Naples area by Region 3.

An analysis, on the spot, did not satisfy the meeting.

In view of the attitude they adopted and the high prices they were asking, and the bad effect it would have on other contractors if their prices were agreed to, it was decided that their contract be cancelled. They were informed, and told to cease work next day. They were informed that their prices would not be accepted for work already executed, and that they would be paid on a figure worked out by the Genio Civile which was considered fair and reasonable. If they decided not accept, then they would have to take the matter up with the Italian Government and ask for an arbitration.

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163

12. REGION III (Regional Engineer, Lt. Col. HENSLEY)(a) General Remarks.

It has been reported that the State highway department was unable to pay some of their cantonieri working on jobs ordered by A.C.C. 8th Army, because of lack of funds. This was the result of the closing of accounts by the Finance Officer, 8th Army, leaving work already started, with no funds to back it up.

The state highway department was advised to pay the Cantonieri at once, so that ordinary maintenance would not be held up in any way. In addition to this, the Regional Engineer has discussed with A.C.C. Headquarters the possibility of getting these unfinished jobs properly financed, so that everything can be cleaned up leaving no "loose-ends" dangling.

Procedure for future work has been clearly outlined to the Genio Civile, State highway department and Provincial engineers, emphasizing the fact that no work will be started without full approval of higher headquarters, which will be obtained through channels submitted through this office.

(b) Staff and Personnel.

Military personnel status in this Section has been unchanged for this month. Our civilian personnel, however, has been augmented in both the Section and the Field officer's setup, in order to facilitate the tremendous amount of work required.

(c) Inspection Tours.

Inspection tours were made in both the Salerno and Caserta areas in order to ascertain the condition of the roads and bridges. Bridge work is coming along very well. The road work has been more or less reduced to work of ordinary maintenance. Road gangs have been provided for, cantonieri have been instructed and depending upon the steady flow of materials, this maintenance will be kept up.

Maintenance work has been stressed, emphasized, and pounded into the heads of the Genio Civile and the State Highway department as a necessity, without which any work done, no matter how well executed is a positive waste of time and money. Maintenance must be constantly carried out; and it must be done when the road is just showing signs of wear and not after it has broken up, beyond ordinary small repairs.

We attach a list of bridges in Salerno & Caserta areas and the percentage of completion.

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(a)

ACC/ BRIDGE CONTRACTS - PROGRESS REPORT

ACC Salerno
Bridges on Military Hy's

August

N.	S.S.P. N.	Name and/or Location	N.R.	Contractor	Date Comm.	Est Date Compl.	%	Re
1	88	I Pratte River	658338	S. Coreggio	17/4	15/6	100	
2	88	I Culvert at Km. 3+585	658448					Plans submit
3	88	I " " " 4+012	656495					
4	88	I " " " 4+180	656515					
5	88	I 2.1 mi N Iaronissi Ra 11+130	650413					Plans submit
6	88	I Bridge over R/R Km 11+983	652413					
7	88	I 0.7 mi N Irofiro Km. 20+276	646486	Lau'ati	3/7	30/9	35	
8	88	I Avellino Bridge Km. 33+700	668569	Calasao	3/7	15/9	25	
9	18	I Ponte Sele Km. 87+390	861411	Perroboten	1/4	15/9	100	PES Job.
10	19	2 Culvert of Eboli Km. 9+150	910240	Giantonio	3/7	30/8	70	
11	19	2 " " " " 11+500	931232	NO	15/5	15/7	100	
12	19	2 Ponte Sele Km. 13+350	947222	G. Braca	0	15/0	3	
13	19	2 Ponte Auletta Km. 47+200	208175	Cavaliere	10/4	15/8	100	
14	19	2 Campostrino	240161	NO	1/3	15/9	100	
15	19	2 Polla Culvert km. 56 + 230	275138	G. Braca	2/6	15/9	30	
16	29	2 Casalnuovo Km. 99+330	450785	Nasella	17/7	15/10	15	
17	94	3 Repair Retlag Wall at Sulotta, Km. 0+150	208181	Coraggio	2/6	15/9	15	
18	18	I Ponte Cave Km. 47 + 100	602326	Campanella & Caputo	1/5	15/0	25	

162

ACC/ BRIDGE CONTRACTS - PROGRESS REPORT

August 1944

Location	N.R.	Contractor	Date Comm.	Est Date compl.	%	Remarks
+585	658138	S. Coreggio	17/4	15/6	100	Plans submitted 6/6/44 to CE for app. no no
+012	658448					
+180	656495					
	656515					
ssi Ra 11+180	650413					Plans submitted 9/6 to CEIII for app. no
Km 11+983	652413					
o Km. 20+276	646486	Laudati	3/7	30/9	35	PES Job.
Km. 33+700	668569	Calasso	3/7	15/9	25	
7+390	851111	Perrobeton	1/4	15/9	100	
i Km. 9+150	910240	Giantonio	3/7	30/8	70	
" 11+500	931232	no	15/5	15/7	100	
3+350	947222	G. Braca	0	15/0	3	
m. 47+200	208175	Cavaliere	10/4	15/8	100	
	240161	no	1/3	15/9	100	
m. 56 + 230	275138	G. Braca	2/6	15/9	30	
99+330	450735	Masella	17/7	15/10	15	
all at						
50	208181	Coraggio	2/6	15/9	15	
47 + 100	602326	Campanella & Caputo	1/5	15/0	25	

= 27 =

PROGRESS REPORT N. 28

Bridges

(a)

Job	R.	Location	Map. ref.	Contractor	Cost	Start	%	Men	Finish	
1	713	Skew-arch-Quagliano	138570	Campanella	1.090.000	15/4	99.9	0		Needs compl to traffic.
2	714	Burlon	122566	Campanella	2.720.000	29/4	90	47	21.8	Filling ove
3	7	Schito 237 + 850	485715	Annino	In prepa.	-	-	0		Not approve
4	7	S. Martino 247 + 850	585726	Cerracchio	1.430.000	15/6	75	34	5.9	Arch comple
5	7	Cerretella 275 + 100	588725	Cerracchio	2.836.000	27/4	58	10	28.9	Ready to op completion.
6	7	Casa Cant. 250 + 250	598732	Tucci	3.461.000	25/4	50	60	1.10	Arch. finis
7	7	Serratella 251 + 750	599747	Tucci	2.826.000	1/4	98	40	5/9	Filling ove Roman Wall.
8	7	Rufariella 252 + 850	605760	Tucci	998.000	1/4	99	0	Fin.	Open to tra complete.
9	7	Corvo 257 + 500	625985	Annino	3.008.000	25/4	90	51	5/9	Filling ove
10	7	Sabato 260 + 500	650808	Campanella	5.350.000	26/6	52	-	1/10	3 arches fi
11	Pro	Calore-Benevento	648315	Campanella	6.200.000	25/4	98/5	15	-	Open, workin
12	7	Tavole 261 + 600	676798	Melchionna	1.640.000	26/4	55	35	1/10	1 arch comp
13	7	Mele 273 + 180	169748	Melchionna	2.740.000	1/4	98.5	16	21/8	Working on
14	7	Sesa 295 + 500	720660	Bid being taken		-	-	-	-	Not approve
15	7	Maretta 297 + 700	716659	Campanella	5.186.000	26/4	65	78	1/10	Piers comp
16	7	Tremolissi 300 + 100	711641	Campanella	3.200.000	26/6	15	36	30/10	Piers and
17	7	Sabato 301 + 180	705635	Pulesco A.	7.540.000	26/6	15	35	15/11	Erecting c
18	90	Calore 0 + 00	795928	Vinciguerra	1.000.000	21/7	7	10	1/12	Preparing Bailey Bri
19	90	Declito 14 + 320	880770	Nascolini	4.500.000	26/6	12	60	1/12	Starting o
20	76	Schiava 56 + 850	585726	Attenu	1.290.000	1/7	45	15	2/10	Half compl
21	76	Masucci	566570	Bids being taken						Waiting es
22	76	Monteforte	500550	Bids being taken						Contract n
23	7	Clean of Volturno bed	780780							

PROGRESS REPORT N. 28

August 1944

Bridges

Contractor	Cost	Start	%	Men	Finish	Remarks.
8570 Campanella	1.090.000	15/4	99.9	0		Needs completion of parapets open to traffic.
2566 Campanella	2.720.000	29/4	90	47	21.8	Filling over arch and parapets.
5715 Annino	In prepa.	-	-	0		Not approved. New proposals coming.
5726 Cerracchio	1.430.000	15/6	75	34	5.9	Arch complete working on sidewalk.
8725 Cerracchio	2.836.000	27/4	58	10	28.9	Ready to open, parapets nearing completion.
8732 Tucci	1.461.000	25/4	50	60	1.10	Arch. finished, 2 nearly complete.
9747 Tucci	2.826.000	1/4	98	40	5/9	Filling over arch, Cantaliver over Roman Wall.
95760 Tucci	998.000	1/4	99	0	Fin.	Open to traffic, some parapet to complete.
25985 Annino	3.008.000	25/4	90	51	5/9	Filling over arch and sidewalk
50808 Campanella	5.350.000	26/6	52	-	1/10	3 arches finished, staging up for 2
48315 Campanella	6.200.000	25/4	98/5	15	-	Open, working on parapets and decor
76798 Melchionna	1.640.000	26/4	55	35	1/10	1 arch complete, 2 half complete
69748 Melchionna	2.740.000	1/4	98.5	16	21/8	Working on parapets.
20660 Bids being taken		-	-	-	-	Not approved, alternative proposals
16659 Campanella	5.186.000	26/4	65	78	1/10	Piers complete, centering in place
11644 Campanella	3.200.000	26/6	15	36	30/10	Piers and both abutments complete
05635 Pulese A.	7.540.000	26/6	15	35	15/11	Erecting centering.
95928 Vinciguerra	1.000.000	21/7	7	10	1/12	Preparing stone and centering Bailey Bridge ?
880770 Mascolini	4.500.000	26/6	12	60	1/12	Starting on first arch.
885726 Attene	1.290.000	1/7	45	25	1/10	Half complete, ready to open.
66570 Bids being taken						Waiting estimate
600550 Bids being taken						Contract not yet allotted.
780780						

(e) Water

The following work has been finished during the month of August.

Repairs of an urgent nature to the Canal bridge at the Torrente di Pannarano. Completed the walls at the Chiaiano pumping station.

Equipment for the hydraulic engines at the Chiaiano station all repaired.

Bolla reservoir repairs are completed.

Started work on the Bolla Aqueduct in the zone outside of Naples.

Set up a new pipeline of 100 mm. at Fuorigrotta to improve water conditions in Rione Scurvati area.

Stone masonry for the pipeline at Piedigrotta, Fuorigrotta for a 300 mm. pipe has been finished.

Various other work done throughout Naples such as bombing repairs and maintenance.

(f) Gas.

There were no mishaps in the gas restoration to that section described in the July monthly report. As soon as the main pipelines are properly repaired with their satellite connection feeding lesser important streets, there will be another extra zone included in the distribution, comprising Via Stella Polare.

The coal situation is normal at the present time. We have just enough in reserve to insure production for 3 months, but we expect new shipments in at any time.

Regular repairs are continuing to the plant itself, in order to get the plant in efficient running condition as far as possible.

(g) Electricity.

Applications received	476
" deferred	25
" approved	273
" rejected	172

The allocations for the month of August were as follows:

Naples District	14,000,000 KWH
Pediguliano	2,000,000 KWH
S. Maria	1,500,000 KWH
Salerno Torre Castell	8,600,000 KWH

According to the consumptions to date we may presume as follows:
 of about 300,000

Set up a new pipeline of 100 mm. at Piedigrotta to improve water conditions in Rione Scarpatti area. Stone masonry for the pipeline at Piedigrotta, Fuorigrotta for a 300 mm. pipe has been finished. Various other work done throughout Naples such as bombing repairs and maintenance.

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S. Maria	1,500,000 KWH
Salerno Torre Castell	8,600,000 KWH

According to the consumptions to date we may presume as follows:

For Naples District: a consumption of about 300,000 KWH over the allocated amount.

For Pemigliano : a consumption of about 70,000 KWH below the allocated amount.

For S. Maria : a consumption of about 170,000 KWH below the allocated amount

For Salerno Torre Castell : a consumption of about 650,000 KWH below the allocated amount.

The 5,000 KWH transformer in Torre Annunziata Sub-Station was tested in the first week of August after a few hours of operation it failed. According to the latest reports from Ing. Masturzo the transformer will be ready for testing on or about the last Sunday in August.

(h) Tren

In the City of Naples have been stopped during our peak hours (9 a.m. to 3 p.m.).

(i) City of Naples.

The general condition of the principal streets in the City is good. However, the fact that maintenance during the last four years was completely lacking coupled with the present difficulty in obtaining workmen and materials are the direct cause of imperfections found today. Since the advent of A.C.O. all main roads plus any roads of military value are being kept up in excellent condition. All repairs are executed as to not disturb the flow of traffic. The following work was completed during the month of August, the repairing of:

Large Section in the main road Miano-Agnano.

Complete repair of Via Ponti Rossi and other roads running North and East of Naples.

Repairs to Via Scudillo, Via Manzoni, Via Leopardi and Villa Comunale.

About 72,700 square metres of road-work was done for in about 28 different streets; in addition to the regular war-damage repairs which are constantly going on.

Rubbish and debris removal from streets and locations of bombed buildings is going on still. This work will be carried out until all streets are made free of incumbrances. Road repairs are being carried out with a particular regard for those going toward Rome.

Sewer work can now be brought to a finish as we have been able to get cement to complete this work. It is to be noted that the deplorable condition of the sewers in Naples were not principally caused by war damage, but by negligence of the Neapolitan officials for over a period of ten years.

Hospital repairs are being carried out. The "Cardinale Ascalesi" Hospital is practically done.

Repairs to 8 workshops in the "Arsenale di Artiglieria" were done, plus the buildings which now houses the AMG Courts.

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(3) Summary

Labor problems have arisen, with the result that shortlived strikes have cropped up among the personnel of the Naples Public Utilities. Aside from the fact that these strikes have their nuisance value, this section is constantly awaiting the day when, because of these strikes, serious consequences resulting from unattended Public Utility Services, such as gas and electricity primarily will occur.

It is to be pointed out that these agitations and strikes are no new thing, but have been occurring periodically from the first of the year when labor groups were granted the right to organize.

No amount of arbitration, in our opinion answers the direct problem on hand, i.e. the jeopardy of public utilities services. It is needless to point out the serious consequences to property and human lives which can be the direct result of a prolonged strike. In the opinion of this Section this matter should be cleared once and for all, eliminating future danger. At the present writing the Gas Company has just finished striking, the local Power Company employees struck last week, using as an excuse the lack of shoes.

Labor groups should not be allowed to remain in a position where they can coerce the A.O.C. into giving heed to their demands by this method.

With regard to tires, tubes, and trucks for the utilities this Section would like to point out that they have not received any at all. The situation with regard to these two items is not getting better, it is worse. We have submitted requests for this material time and again through every available channel; with absolutely no results. This Section has arrived at the conclusion that without assistance from H.Q. A.O.C. there will be no tires forthcoming. We cannot emphasize the need for this material strongly enough.

This Section would like to point out that the truck service rendered by the "Consorzio Autotrasporti" is inadequate, in that the trucks themselves are in deplorable condition; they are unreliable for any extended trip whatsoever.

In many cases the trucks break down before the work has started.

Gasoline has been requested through local channels, long detailed, and minute data has been submitted as to each vehicle requirement, whether it be a ten ton truck or a motor-cycle; these same data have been submitted by region, by section, by province, by utility and by contractor, and still gasoline allotments are inadequate. Records are confused with the result that our civilian agencies do not get sufficient gasoline to operate for the month.

We have exhausted our channels of supplies, limited as they were; and this section now indicates that materials requested through the form MAT 10 are very slow in arriving. After a careful check of our records of MAT tons submitted we find that at least a month goes by before we get a written answer as to whether the material will be available in the

excuse the lack of buses. Labor groups should not be allowed to remain in a position where they can coerce the A.C.O. into giving heed to their demands by this method.

With regard to wires, tubes, and trucks for the utilities this section would like to point out that they have not received any at all. The situation with regard to these two items is not getting better, it is worse. We have submitted requests for this material time and again through every available channel; with absolutely no results. This Section has arrived at the conclusion that without assistance from H.Q. A.C.O. there will be no wires forthcoming. We cannot emphasize the need for this material strongly enough.

This Section would like to point out that the truck service rendered by the "Consorzio Autotrasporti" is inadequate, in that the trucks themselves are in deplorable condition; they are unreliable for any extended trip whatsoever.

In many cases the trucks break down before the work has started.

Gasoline has been requested through local channels, long detailed, and minute data has been submitted as to each vehicle requirement, whether it be a ten ton truck or a motor-cycle; these same data have been submitted by region, by section, by province, by utility and by contractor, and still gasoline allotments are inadequate. Records are confused with the result that our civilian agencies do not get sufficient gasoline to operate for the month.

We have exhausted our channels of supplies, limited as they were; and this section now indicates that materials

requested through the form MAT 10 are very slow in arriving. After a careful check of our records of MAT tens submitted we find that at least a month goes by before we get a written answer as to whether the material will be available in the future, or not.

It is pointed out that delays in completion of work in progress invariably result. It is our opinion that an allocation of construction materials could be made on a month to month basis, from which local priorities could be made.

This Section is also interested in knowing what definite plans are outlined for the rehabilitation of key-industries, for which a heavy demand is being made for construction materials.

It is further requested that an operating program be established to rehabilitate plants to produce items now under control of the Axis.

The question of transportation is an ever increasing "bottle neck" and it is the opinion of this section that this condition can be readily remedied by reconstructing equipment now lying idle, if a program of coordinated effort could be received from the numerous parties involved in the operation of the Italian railroad system.

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13. ROME REGION (Lt. Col. BIRCHETT, Engineer Officer).

(a) During the month the Rome Region was consolidated with old Region IV, Lt. Col. Findlay of Region IV was appointed Regional Engineer, and the Rome staff continued to operate under the direction of Lt. Col. Birchett, pending consolidation of the two offices. This consolidation is expected in the near future. In the meantime close coordination of effort is being maintained with the RAAC Engineer Group. To avoid confusion until the Rome Region and Region IV offices are consolidated, the section is called TCU Section, Region IV, Engineering Division.

As of 15 August the Region was turned over to the Italian Government. This has made very little change in operation.

(b) Personnel of the former Rome Region is as follows:-

Lt. Col. Birchett	- Director TCU Section, Engineering Div.	"
Major Buckley	- Water Supply, TCU Sec.	"
Major Hawker	- Telecommunications, TCU Sec. Engr. Div.	"
Major Michel	- Public Works Sec.	"
Capt. Robb	- Administrative Off.	"
Capt. Rossion	- Electrical & Mech.	"
Lt. Wade-Brown	- Electrical Section	"

(c) Inspection Tours.

Inspection trips have been made on all projects. Those in the city are inspected daily; those in the vicinity weekly.

(d) Military Highways.

Work on all military highways is being prosecuted, using the same contractors reported in August. Contracts have been let thru the Genio Civile and necessary reports and forms forwarded to ACC.

(e) Secondary Highways.

Secondary highways are being given more consideration and work will be prosecuted now that the main routes are in good condition. Streets in Rome City demand attention. Several small bridges are being built in the vicinity of Rome. The values of the road work cannot be stated since it is all heavy maintenance (by cost plus contracts).

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Major Michel	-	Public Works Sec.
Capt. Robb	-	Administrative Off.
Capt. Rosson	-	Electrical & Mech.
Lt. Wade-Brown	-	Electrical Section

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(f) Public Works.

Fiumicino Harbour Project.

Good progress has been made on assembling the equipment for raising the boats, considering the set-backs and obstacles met that were beyond the jurisdiction and control of the operating Company doing the work, such as transport, gasoline, requisitioning the cars used by their engineers, etc. The Company doing the work has associated with it four other Companies, all of whom have had experience in this type of work. They now

have in operation 3 units for raising boats, in addition to a steam crane and a Diesel power plant mounted on separate barges. 12 barges and boats have been raised to date and 3 more are in process of being raised. They have assured us of an average of one boat every three days from Sept. 1 onwards.

Another firm has practically completed removing rubble from the street along the right quay. They have also completed the closing of the largest opening blown in the right quay near the outlet of the canal, with rubble removed from the streets and have placed 450 mc. of concrete blocks as a protection to this fill.

(g) Projects for buildings damaged by bombing.

Activity in this has mainly been confined to repair of hospital buildings and University of Rome buildings. Forty-two projects totalling 72,175,000 Lire have been presented by the Genio Civile's Office. Forty of these projects, totalling 41,175,000 have gone forward from this office approved. Thirty-one of these projects have been started, due to urgent nature of the work.

The S.S.T.I. for Comune of Rome has presented a general program covering 31 bridges totalling 24,300,000 Lire. These are bridges blown by the Germans and replacement is urgently needed on most of them. The S.S.T.I. for the Comune is now preparing projects for the above.

The Genio Civile for the Tevere and Agro Romano has presented 7 projects totalling 6,360,000 Lire for work on main outfall sewers of Rome, the levees along the Tevere below Rome and sewers of the Ostiense area. Work is being done on all these projects because it is necessary to have them under control before fall rains set in.

(h) Some improvement since last month has been made by Nettezza Urbana (street sweeping and garbage removal). However, the services are handicapped by a shortage of petroleum products and tires for the equipment they have in operation; also need for repair parts and tires for equipment now immobilized. The service has provided for special cleaning of several areas of historical-artistic interest. A large number of horse carts and workers have been assigned and kept busy on such special work and cleaning up nuisance, dumping of refuse, most of the latter being done by Army units or different units of our occupational group.

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(i) Several of the lesser paving and sewer repairs have been completed. The major paving job, the Via Ostiense area, does not show much progress. Underground work, consisting of several sanitary and storm sewers utilities consisting of gas, water, communications and electric tunnels are nearing completion, and resurfacing will proceed as rapidly as controlled materials such as cement and asphalt become available.

(j) Repairs of damage to road paving caused by war action.

There are 7 schemes of special road and street works in hand, from 20,000 to 100,000 lire in value.

Other projects regarding similar works in the Montemana and Monteverde areas (Delegazioni XI and IX) have been submitted to the Genio Civile for approval.

(k) Bridges.

- Bridge across the Almona stream as per No. 30 of list: works are under execution (10 workmen).

- Tito Tasio Bridge - Wks are proceeding (12 workmen).

- Magliana Bridge (n. 1 of list) - the offers presented by several contractors are under examination.

- For Bracciano Bridge - the lack of floating craft and other equipments does not enable us to receive offers while works at Magliana Bridge are under execution.

- Luterio Catulo concrete bridge (No. 10 of the list). The clearance of the river mouth has been effected.

Plans have been completed and submitted for approval relative to bridge access to Castel Fusano park X and bridge over the Aurona stream.

(l) Materials and labor.

Contractor Marchetti & Mambriani are awaiting consignments of lime. No alteration in the supply of sand, which is being exhausted. During the week we have had the following work days 1284; carts 170; trucks 15; water tank carts 16; tractors 18.

(m) Electrical services.

- Power production.

Total energy produced by hydro, steam and Diesel installations together with peak power demands are tabulated in exhibit 1. For the month of September the allocation of hydro power to Rome was reduced from 15,500 KW to 8,200 KW by the Local Resources Board. A new peak was reached on August 28 of 43,000 KW, with an energy output of 814,000 KW hrs.

- Fuel.

Coal received by rail at a satisfactory rate, and for the month deliveries exceeded consumption.

- Magliana Bridge (n.1 of list) - the offers presented by several contractors are under examination.
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- Lutatice Ostia concrete bridge (No.10 of the list). The clearance of the river mouth has been effected. Plans have been completed and submitted for approval relative to bridge access to Castel Funesco park X and bridge over the Arnone stream.

(1) Materials and labor.

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- Fuel.

Coal received by rail at a satisfactory rate, and for the month deliveries exceeded consumption with a resulting increase in the stock pile.

Diesel oil deliveries from Naples have not been satisfactory and the PCI Section AAI has been asked to arrange for shipments to Rome from Naples by rail. Bids were also submitted to PCI Section AAI for boiler fuel oil, to be shipped by rail from Naples.

Additional power will have to be generated in the thermal station, to offset the reduced hydro allocation.

Electricity Rationing.

The rationing plan for non-preferential consumers which became effective on 23 July has been successfully maintained during the month of August. It is not believed possible that this program can be continued during September, unless further restrictions are placed on the use of electricity.

(n) Gas Service.

Distribution of gas was resumed on Tuesday 29 August. Present fuel allocations for gas production amount to 160 tons of gas coal per day and 30 tons of lignite. The Societa Italiana per il Gas estimates that a coal consumption of 150 tons per day will permit daily distribution for 14 hours at reduced pressure to the entire City.

It is not believed that this limited service will prove satisfactory and it is recommended that beginning on last October service be based on a 7 hour schedule of daily distribution. Estimated monthly coal requirement for such operation are 14,400 tons of gas coal and 1,600 tons of Sardinian coal. Bids for this amount have been submitted to the Coal Section - Transportation Division, AGO.

(o) Street Car Service.

The hours of street car operation adopted on August 4 were continued until the end of the month, when a new plan was inaugurated which provides for a reduction of the number of street cars during periods of the day when power demands are greatest, and additional cars during other hours. This plan will result in a slight reduction in the maximum power requirements of the Tram Company with approximately the same consumption of energy.

(p) Industries and factories.

Power is furnished to essential services. Coal is being loaned in small quantities to essential users by this section (from Gas Co. stocks) pending the receiving of coal by the Economics & Supply Division.

(q) Water Works.

Water is still a major problem although it is believed that the main trouble is over. During the month a change-over in the main aqueduct system, the Marola, was undertaken from the temporary wooden ducts to masonry ducts.

Present use of gas coal per day and 30 tons of gas coal consumption of Italiane per il Gas estimates that a coal consumption for 14 hours 150 tons per day will permit daily distribution for the entire City. at reduced pressure to the entire City.

It is not believed that this limited service will prove satisfactory and it is recommended that beginning on 1st October service be based on a 7 hour schedule of daily distribution. Estimated monthly coal requirement for such operation are 14,400 tons of gas coal and 1,600 tons of Sardinian coal. Bids for this amount have been submitted to the Coal Section - Transportation Division, ACO.

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(q) Water Works.

Water is still a major problem although it is believed that the main trouble is over. During the month a change-over in the main aqueduct system, the Marcia, was undertaken from the temporary wooden ducts to masonry ducts.

The flow of the Marcia aqueduct continued at 3900 litres per second, until 2000 hours 24th August when it fell to 2,700/ lbs owing to the shutting down of one aqueduct to remove the temporary diversion and bring back into operation the main aqueduct which had been damaged by the floods and was now repaired.

This work was carried out by the C.R.E. supplying the compressors, lighting plant, supervision etc. Acqua Marcia

supplying the specialists and men, the work was completed at approximately 0400 hours 25th; washout commenced at 0600 hours and the aqueduct commenced to fill at 10.00 hours 25th; instant pressure began to rise in the late afternoon of 25th.

The arrangements made were as follows: temporary drinking fountains were installed in the district where water would be short; A.G.E.A. Coy arranged to pump into the Marcia system as much water as possible; A.G.E.A. undertook to look after the district where there was not any water at all, i.e. Monte Mario, Madonna del Riposo, by means of mobile water-tanks obtained from the "Autoparco" of the Comune and reserved from special water-points established; the Fire Service were detailed to supply the five or six hospitals that were expected to be short of water.

So far, this added water has had little effect in the city and it is expected that pressures will not build up until probably the end of the month, when the quantity at Tivoli should be 5,000 lps, as against 3,900 lps. on the 24th August.

This will not put an end to water troubles, as most of the high apartments, even in working class quarters, are fitted with electric pumps, and as these function only every fourth day and the cistern capacity is small, we will still have to run the street corner fountains. From public health point of view it would be better to give the same amount of current but for shorter periods, and more often.

(r) A.G.E.A. System continued normally at 2,160 lps. Their pumping stations ran to capacity and supplied to Marcia during the "change over" period an additional quantity of 120 lps.

The OSTIA LIDO branch is still giving trouble. At times there is no water at Ostia.

CLAMPING - Works on this supply to airports and camps should be completed by the end of the month, as far as the needs of the Army are concerned. The Genio Civile has been requested to prepare a project for civil needs.

GENERAL HOSPITALS and some other additional installations still continue to be supplied by the Fire Service. This will be the case until sufficient quantity and pressure can be obtained in the Marcia system.

The quantity of water, and therefore pressure, is being reduced due to a drying up of springs at the source.

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13 A. REGION IV. (Regional Engineer, Lt. Col. FINDLAY V.C. M.C. R.E.)

(a) Organisation.

On 1st August Region IV and ROMS Region were combined as Region IV. The Regional Commissioner agreed that in future the "Engineering Division" would be so entitled. Office accommodation questions have been difficult and continue so. The Division is still located away from Region IV Hqrs.

The Electrical and Mechanical Sections were difficult to organise. Two senior officers were transferred. Their work is now devolved on one junior officer.

Public Works (Provinces) continued unchanged except for the addition of roads and bridges, in order to let another officer take over all Military and State Roads.

Highways were taken over by 2 officers, and there were other re-arrangements of duties.

(b) Very close cooperation with Rome Area Allied Command Engineers, almost amounting to a trunvirate at each level, was difficult to change, but with reduction of officers ahead this had to be faced.

It is hoped that it may be possible to continue the friendly relations that have existed, as the willing help offered by Col. Medding and Lt. Col. Cockerton has been most valuable.

A separate report by Lt. Col. Birchett was submitted dated 4th September, as a handing over report, prior to his departure.

(c) Inspection Tours were limited severely by having only one car.

(d) Highways (Military and State).

	<u>In Italian Government Territory</u>	<u>Lire</u>
<u>Bridges</u> started	No. 19	approx. value 142,000,000)
<u>Estimates</u> being prepared	No. 20	35,000,000) =
<u>Other works</u> started	No. 15	33,000,000) 230,000,000
<u>Under preparation</u>	No. 4	20,000,000)

In ANC Territory

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<u>Bridges started</u>	No. 19 approx. value	142,000,000)
<u>Estimates being prepared</u>	No. 20	35,000,000) =
<u>Other works started</u>	No. 15	33,000,000) 230,000,000
<u>Under preparation</u>	No. 4	20,000,000)
	In AMG Territory	
<u>Bridges started</u>	No. 3	10,000,000)
<u>Under preparation</u>	No. 15	30,000,000) =
<u>Other works, repairs, etc.</u>	No. 4	8,000,000) 68,000,000
<u>Under preparation</u>	No. 10	

Steps have been taken to regularise emergency work previously started, and this has progressed satisfactorily.

(e) Close liaison has been maintained with CRE on Routes 6 and 2.

Due to many changes of PBS on Route 7 liaison has been more difficult, and the Lt. Col. in charge has his HQ near Naples.

Liaison on Route 1 is also difficult as the Engineer in charge has moved far North (out of the Region).

(f) Mines.

The Italian Mine Clearance Company before leaving on 29th August is now reported to have lifted ~~1 mine~~ 1 mine. (The previous report was NIL).

Prior to 1st September there were talks, conferences, and approaches with view to getting civil contracts (and getting civilians trained) but no results achieved as yet.

(g) Bonifica.

Financial objection to the 50,000,000 Lire project for Bonifica in Litteria was waived, and work which had had to be closed down was restarted, but 3 valuable weeks of fine weather had been lost.

(h) Electrical.

During month in Region IV 4 additional generating units were started yielding 4,720 KVA, offset by low water in rivers to drive those already running.

The total energy in the Region (including Rome) is 43,700 KVA which is 6.6% of former total capacity installed. During August 295 km of Distribution lines were repaired.

(i) Transport.

Cars for inspection continue to be most unsatisfactory until tyres can be supplied, and trucks are similarly handicapped.

(j) The Genio Civile are now functioning reasonably well in the Provinces of Region IV with the exception of Perugia, which is still not under the Region, and of which little is known at the moment. Provisional budgets for the period July to September were approved as follows, and the Finance Officer asked to make available the funds:-

29th August 1956 report was NIL).

Prior to 1st September there were talks, conferences, and approaches with view to getting civil contracts (and getting civilians trained) but no results achieved as yet.

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156

Roma	105 Million Lire
Prosinone	334 "
Littoria	130 "
Perugia	54 " (interim only)
Rieti	not yet submitted
Viterbo-Terzi	" "

From 15th August Rome, Littoria, and Prosinone Provinces passed to the Italian Government, whereupon the Regional

Engineers' function was reduced in many cases to giving only "approval in principle" to projected works in those areas.

(k) Re-housing.

The Regional Engineer views with apprehension, in view of the approaching winter, the slow progress made. He was given to understand that only Government-owned properties might be repaired. Pontecorvo and Cisterna are typical cases of badly damaged, but not totally destroyed towns. He asked the Genio Civile in August to present, as test cases, a scheme covering easily repairable houses in private ownership in each of these towns. The Prefect of the Province would then have power to requisition the repaired houses and would be able to allot accommodation to the best advantage.

(l) Provinces.

In Rieti the principal damage was confined to roads. In Viterbo conditions are not disastrous generally, but the town of that name was extensively damaged. In Terni one bridge scheme has been approved, of local materials, and other bridge projects are held over pending receipt of a priority list. A number of schemes for demolition and debris clearance have been approved. The same applies to Rome Province where works are proceeding satisfactorily. In Littoria the main scheme is the Bonifica. In this Province there are very large numbers of uncleared mines. In Grosseto Province the same mine clearance problem exists, and a scheme to cost nearly 4 Million Lire for Bonifica works cannot be started till the mines are cleared.

(m) Finances of Projects.

In the Italian Government portion (of Region IV) 18 schemes of water supply reconstruction have been approved; value 21 Million Lire. There are also 23 water schemes under preparation to cost 47 Million Lire.

Eight schemes were approved for bridges (of non-Military importance), value 13 Million Lire; and 9 schemes to cost 25 Million Lire are under preparation.

Miscellaneous works approved were 52 at the end of August, with a value of 117 Million Lire; and 9 schemes approved in principle costing over 10 Million Lire.

In A.M.G. Territory similar lists, but on a very much smaller scale, with a gross total of about 28 Million Lire, either approved already or under preparation.

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14. REGION V (Regional Engineer)(Lt. Col. Latimer)

(a) Areas controlled by Region V are as reported last month. Pesaro - Urbino has not yet been occupied. Ancona and Macerata are under the control of 8th Army, and Campobasso witho returned to the administration of the Italian Government is still under the administrative control and technical supervision of Region V.

The area of Region V at the present time lies within the 1st and 2nd District Army areas. Recent orders have put 1st Dist. under 8th Army.

(b) Organization.

The following officers are at the present time working with the Public Works and Utilities Divisions of the Regional Engineer Section, Region V.

Lt. Col. C.A. Latimer	(A)	Regional Engineer
Major J.E. Foden	(B)	Public Works Officer
Major John Bennett	(A)	Public Utilities Officers
Lieut. John Walsh	(A)	Public Works Officer

Contemplated personnel changes will necessitate, W.A., organizational changes during next month.

(c) The Provincial Engineer at Teramo has been dismissed by the Prefect and another engineer appointed in his place. Eng'r Ascoli has suspended the Prov. Eng'r. (Turchio) pending investigation and has appointed the senior member of the Teramo Provincial Engineer Staff in his place. I intend to investigate this personally at the earliest possible date, in company with Eng'r Ascoli and possibly Eng. Valerio. If the engineer is at fault I shall approve the dismissal but the new appointment must be from name or names submitted by the Dep't of Public Works.

There have been no other changes in the Italian organization.

(d) Inspection Tours.

The Regional Engineer visited Teramo, Ascoli Piceno, Macerata, Ancona, Pescara, Aquila and Campobasso on inspection trips, besides attending a Provincial Commissioners conference, and discussing engineering problems with them.

(e) Military Roads. (Ref. HQ.A.II.CMF 2078/12 of 17.7.44).

We note 4-5 Appendix A and will be guided by these instructions, and by Par. 1 of the reference.

with the Public Works and Utilities Divisions of the Regional Engineer Section, Region V.

Lt. Col. C.A. Latimer	(A)	Regional Engineer
Major J.D. Peden	(B)	Public Works Officer
Major John Bennett	(A)	Public Utilities Officer
Lieut. John Welsh	(A)	Public Works Officer

Contemplated personnel changes will necessitate other organizational changes during next month.

(c) The Provincial Engineer at Teramo has been dismissed by the Prefect and another engineer appointed in his place. Eng'r Ascoli has suspended the Prov. Eng'r. (Turchio) pending investigation and has appointed the senior member of the Teramo Provincial Engineer Staff in his place. I intend to investigate this personally at the earliest possible date, in company with Eng'r Ascoli and possibly Eng. Valerio. If the engineer is at fault I shall approve the dismissal but the new appointment must be from name or names submitted by the Dep't of Public Works.

There have been no other changes in the Italian organization.

(d) Inspection Tours.

The Regional Engineer visited Teramo, Ascoli Piceno, Macerata, Ancona, Pescara, Aquila and Campobasso on inspection trips, besides attending a Provincial Commissioners conference, and discussing engineering problems with them.

(e) Military Roads. (Ref. HQ.AAI.CMP 2076/12 of 17.7.44).

We note 4-5 Appendix A and will be guided by these instructions, and by Par. 1 of the reference.

There is an activity along route 16, due primarily to an effort to get this very important highway ready for winter use. Bridges are being repaired, or high level diversions constructed (in many cases using Baileys). This work has been ordered by, and designs approved by Army Engineers. We are watching to see that debris from old bridges are promptly cleared from water-ways.

Route 5-17 from Pescara to Antrioco is being maintained and improved. Two bridges under reconstruction.

The remainder of this road is being maintained by Cantonieri.

(f) Other Roads.

The Armies removed various Bailey bridges prior to completion of masonry bridges in hand, and their going has reduced available transportation to a point where public works must practically come to a standstill unless other arrangements are made. Five bridges were approved for construction and contract. Three others have been approved for forwarding thru Italian channels.

In some Provinces emphasis for construction and repair of roads (other than Military) have been on those leading in from Coastal supply points, and those connecting Aquila (Regional Hdqtrs), with the various Provincial capitals and Rome. The roads to Macerata and Ascoli Piceno from Aquila (Via Nos 48 76) with connecting Provincial roads at the lower end are open. The road to Teramo (No 80) is passable for a jeep, but will require about three weeks more for a standard car.

Road No. 17 (Aquila to Isernia) is passable but extremely rough, and is being worked on. Much of this road is being worked on cost-plus contracts, originally let by the CRFs. Other parts are being improved by local gangs, under the Cantonieri.

Considerable trouble has been caused by contractors on R's 82 (working under contracts signed in Rome) coming into Aquila Province and paying higher wages than are authorized in this province, and purchasing materials at higher than ordinary prices. It was understood that these contracts were to have been turned over to Region V, but nothing has yet been done about it.

Road work particularly high-level, all weather diversions is proceeding in the forward areas. Our contacts with District I (Armies) have been most amiable.

(g) Public Works.

Water-supply still heads the list. Plans for reservoirs at Chieti have gone forward for approval, and release of controlled material. Work is proceeding on various other water supplies. In many cases the supply depends upon electricity

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Road No. 27 (Aquila to Isernia) is passable but extremely rough, and is being worked on. Much of this road is being worked on cost-plus contracts, originally let by the CREs. Other parts are being improved by local gauge, under the Cantoniari.

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Road work particularly high-level, all weather diversions is proceeding in the forward areas. Our contacts with District I (Armies) have been most amicable.

(G) Public Works.

Water-supply still heads the list. Plans for reservoirs at Chieti have gone forward for approval, and release of controlled material. Work is proceeding on various other water supplies. In many cases the supply depends upon electricity to operate pumps. This problem is particularly serious in Aquila, where many villages and towns are without water due to the low and fluctuating voltage of our exceedingly scant supply of power. In most cases, where the problem is one of construction, it is well in hand.

Sewers in Pescara are opened and finally operating.

Small expenditures have been approved for the repair of the "Castle" in Aquila, for use of Italian military authorities.

(h) Electricity.

The power situation in the advance areas of region V is most unsatisfactory, but very little can be done at the present time. The important stations are destroyed or badly damaged and transmission lines are interrupted. Aircona and forward military centres are increasing the demand faster than other sources can be repaired.

700 KW has been allotted Aquila from Ascoli Piceno plants. The province has been subdivided and a study made of essential plants and services. This power has been distributed equally. The U.N.E.C. engineer in Aquila is now making a detailed survey of all plants in this Province, with a view to repairing or salvaging equipment or parts.

Work is proceeding on the repairs of a 1000 K.W.A. electric plant at Lama dei Peliccioli for use in Chieti. The main power line from Lanciano to Pescara is being rebuilt and should be finished in about five weeks. When complete this should ease conditions considerably in this entire area. The transmission line from Chieti to Aquila is being repaired and should be ready by the time Lanciano Pescara line is finished.

(i) Industries.

Several cement plants have been surveyed and requests sent forward for critical materials (mostly belting) in order to get these plants back into production.

An inspection was made of a natural gas plant in the Pucino Lake area near Avezzano, which had escaped damage and arrangements were made for it to have some power in order to operate. Work has started on a transmission line to Scafa San Valentino, to reactivate a large asphalt plant at that place.

(j) Materials.

Instructions for distribution of P.O.L. have been received and studied. It is hoped that this new operation will remove one of the more serious difficulties that we have experienced. Additional transport is urgently needed for Public Works operation, particularly in Campobasso.

It is requested that every effort be made to provide required belts for the cement plant in Roma.

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An inspection was made of a natural gas plant in the Fusine Lake area near Avezzano, which had escaped damage and arrangements were made for it to have some power in order to operate. Work has started on a transmission line to Bonfa San Valentino, to reactivate a large asphalt plant at that place.

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154
It is requested that every effort be made to provide required belts for the cement plant at Bonfa.

Cement requested for bridge construction and construction of reservoirs at Chieti must be made available immediately, if work is to be done this season, as both these jobs are urgently needed before this winter.

(k) Miscellaneous.

Two small jobs not requiring critical material have been approved for the Ancient Monuments Comm.

15. REGION VI (Regional Engineer, Capt. SMITH S.R.)(a) General Remarks

No developments have occurred during August. Complaints are being made of lack of progress in reconstruction of buildings in Cagliari, and failure to begin new road, and water supply projects. With the progress of the war, and its increasing distance or appreciation as more Italian soldiers leave Sardinia, more clamor for advantages, personal and public, is rising. The Allied Control Commission is naively expected to cure all ills without regard to war, shipping space, or critical materials.

(b) Staff Changes

Effective 26 Aug, all connection between Transportation and Public Works and Utilities was severed. The present staff of Region VI Public Works and Utilities is:

1. Edward E. SMITH Captain S.R. (A) Regional Engineer
2. Wajd. H. DISCOE, AUS (A) P.O.L. Supervision
3. V.L. MEUCCI, Capt. Art. (I) Interpreter, Translator
4. G. ABIS, Captain Ptr. (I) P.O.L. Division
5. E. MUZZI, Signorina (I) Typist.

Recent orders which will return Italian officers to their units will, unless suitable civilian interpreter-translators can be procured (exceedingly difficult in Sardinia) remove Captains MEUCCI and ABIS. Such result would seriously restrict the activities of the office.

(c) Inspection Trips

Due to the limited staff, no trips of inspection were found possible outside Cagliari.

(d) Military Highways

No changes are noted from the general observations of the July report. Within the City of Cagliari the streets are practically completed.

(e) Secondary and Inter - Communal Highways.

No change from previously reported situation.

(f) Public Works.

Progress is reported on reconstruction of school buildings in Cagliari and the Cagliari Municipio. It seems doubtful that the present rate of progress will permit use

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(e) Secondary and Inter - Communal Highways.

No change from previously reported situation.

(f) Public Works.

Progress is reported on reconstruction of school buildings in Cagliari and the Cagliari Municipio. It seems doubtful that the present rate of progress will permit use of schools under repair at the beginning of the next school session. Principal difficulties seem to be lack of reinforcing steel, transportation and skilled labor. A brief list of miscellaneous activities of the Regional Engineer is attached.

(g) Electricity

From 24 July to 24 August the power plants of the Soc. Elet. Sarda produced:

Coghinas	5,356,400	KWH
Tireo	2,207,400	"
S. Caterina	4,215,800	"
Total	11,779,600	"

On 24 August the water elevations of storage reservoirs:

Coghinas - metres above sea-level	135.13
Tireo - metres above sea-level	93.60

The S. Caterina plant resumed operation 29 July.

(h) Industry

Difficulties developing at the two ice-plants in Cagliari on account of restriction of water service are being overcome by the use of ground water supplies for compressor cooling, and by providing storage for potable process water.

A comprehensive report of the August activities of the office in connection with automotive circulation and P.O.L. rationing has been prepared by Mr. Discoe for transmission to the Economic Section Industry and Commerce Sub-Commission.

(i) Public Utilities other than Electric power.

(1) Water. The water shortage of Cagliari is under control. Continuous liaison between the Regional Engineer, the Allied Garrison Engineer and the Capo Ingegnere of Cagliari has produced results. Further conservation is contemplated as soon as arrangements for expedients are completed, by further reduction in the daily hours of service (since 4/8/44 between 0500 and 2100 hours only).

The Provincial Commissioner of Sassari reports restriction of hours of water service at the City of Sassari. The usual drying up of springs is reported from Villas during the period of high temperature and peak consumption. Plans are made to correct several deficient supplies whenever material becomes available.

(j) Drainage

No construction aitho plans and estimates are made.

Gas. It is understood that some gas has been manufactured at the Sassari plant. An allotment of imported coal to both Sassari and Cagliari plants has been requested. The des

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No construction at the plans and estimates are made.

Gas. It is understood that some gas has been manufactured at the Sassari Plant. An allotment of imported coal to both Sassari and Cagliari plants has been requested. The gas situation in Cagliari is negative.

Tram service. No change from July situation but early completion of street repairs in Cagliari will permit use of off-street terminal and transfer-point south of Via Roma, and remove pedestrian congestion in Piazza Garibaldi.

153

Clearance of Cagliari. 70% done.

Plumondosa Det. No change.

Materials. No change.

Transport. No change.

(K) Fuel Stationing.

Considerable improvement in allocations control by Italian personnel, and general tightening of the present system has been effected.

(L) Estimates and E.W. Contracts.

No use has been yet made of forms ACC/I and ACC/2, apparently because no new work is at present being prepared or transferred from previously used forms. Proper instructions have been given to the Provveditore Opere Pubbliche.

15921

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- 46 -

16. REGION VII (Regional Engineer - Major Chamberlain)

(a) Remarks.

In Calabria there has been a major change in the operations of A.C.C. during this month. The entire staff has been reduced to a bare minimum necessary to observe the work of the people. This has called for all officers being recalled, leaving one regional team of some ten officers, which is contemplated to be changed into a provincial team. The Military mission to the XVII Army Corps was recalled from Catanzaro.

Calabria was changed from control of No. 2 District to No. 3 District (Arms).

Engineer C. Nisini has taken over the position as Chief Engineer of Cosenza Province for the Genio Civile. He speaks some English. The Minister of Public Works visited Calabria this month but was ill during his visit and did not confer with our Headquarters. He has ordered the suspension of all national aid to the reconstruction of war-damaged private houses.

(b) Staff and Personnel.

There has been no change in staff and personnel in this department during this month.

(c) Inspection Tours.

Inspection trips were made to Reggio, Crotona, Cosenza, and Sile this month. These trips were all for the purpose of inspecting roads, public works projects, and for conferences on electrical rationing.

(d) Military Highways and Bridges.

There has been no change in priorities in Military highways in Calabria. Progress on maintenance of roads is not satisfactory, due to lack of transportation and materials. Heavy repairs are being made on 51.3 kilometers of road and ordinary maintenance on 434 kilometers.

The Virtù Bridge will be finished by the end of this month. Five bridges are under construction, the Angitola, Messina, Amato, Petrace and the Bistrice.

Contract was let for the completion of the small bridge and (re) a landslide on the mountain north of Morano Calabria. This is the last contract to be let on bridges of major importance on Military Highways, with the exception of the Fusento river bridge in the city of Cosenza. The Petrace, the Messina and the Angitola bridges are being "clayed" and

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Inspection trips were made to Reggio, Crotone, Cosenza, and Sila this month. These trips were all for the purpose of inspecting roads, public works projects, and for conferences on electrical rationing.

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There has been no change in priorities in Military highways in Calabria. Progress on maintenance of roads is not satisfactory, due to lack of transportation and materials. Heavy repairs are being made on 61.5 kilometers of road and ordinary maintenance on 434 kilometers.

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At the end of August the total value of all work on Military highways amounted to L.31,634,000 of which an expenditure of over 10,000,000 has been made.

(e) Other Highways.

Approval has been recommended for L. 975.915 worth of work this month including one bridge, one landslide, and three maintenance and war damage repairs. Bids were taken on two sustaining wall projects. Approval has now been recommended for L. 3.030.975 worth of work on non-military highways and roads.

(f) Public Works.

Twenty five projects were recommended for approval in August amounting to L. 3.574.200 including three demolition jobs, two barracks, three prisons, two hospitals, four schools, one sustaining wall, four stream control projects, eight public buildings, and one community slaughter house. This brings the total amount of public works projects recommended for approval to L. 7.076.200.

Work has started on the Gallura prison. The first projects for the placing of the ceilings in the barracks was received on the 24th of August. Bids were taken for five public works projects during this month. No report has been received on the malaria control campaign. Gross were received for the workers and forty cans of Paris green were distributed to each province.

(g) Public Utilities.

Six projects amounting to L. 1.320.812.50 were recommended for approval. These included four projects on the repair of sewers and two on the repair of aqueducts. Contract was let for the sewers in Caltanissetta Marina; cement for this job has been released but has not arrived (at present writing).

(h) Electricity.

The electricity situation in Calabria has been somewhat tense during this month. While putting into force the decree the rationing of electricity was supplemented by cutting off lines for periods of approximately four hours during the day-time, for various groups of towns at interspersed intervals. Such action resulted in a saving of about 20,000 KWH/day and aided greatly in staying within the Local Resources Board allotment. On 5th of August this was suspended.

The decree was applied only, and during the course of the month some 400 industrial consumers, 220 electrical appliance users and around 2,600 private light consumers were ordered cut off. All industrial applications were reviewed for the Province of Cosenza and Catanzaro and about 40% of those in

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The decree was applied only, and during the course of the month some 400 industrial consumers, 220 electrical appliance users and around 2,600 private light consumers were ordered cut off. All industrial applications were reviewed for the Province of Cosenza and Catanzaro and about 40% of those in Reggio Calabria. A survey of private lighting showed about 82% of the customers using over 50% of the amount consumed in 1942. In as much as the cutting off this great number of consumers was not feasible, it was decided to punish the worst violators during the first month, and the examination was made on the following basis:

- (a) Customers using less than 5 KWH were not examined.
- (b) Customers using in 1944 5 KWH to 9 KWH were allowed 150% of their consumption in 1942.
- (c) Customers using in 1944 from 10 to 15 KWH were allowed 100% of their consumption in 1942.
- (d) Customers using over 15 KWH were allowed 75% of their consumption in 1944.

Under this basis the number of people affected amounted to about 10% of the customers. By the 21st of the month some 26,300 people had been examined, with 2,600 ordered to be cut off. The cut offs were started and complaints began coming in in great number. The system is slow and cannot be applied all at once.

The consumption of electricity by the "Società Elettrica della Calabria" for the month of July from the Sile plant was 1,900,000 KWH and 1,540,000 KWH. from its own "Centrale". Its consumption for the first 23 days in August from the S.M. was 1,980,000 KWH.

The Montecatini plant plans to increase its load about the second week in September. They are now receiving projects from Marcellinara, which allows the production of superphosphate.

(1) Materials.

Cement ordered in June has been released but has not arrived in Calabria. There are three Military highways bridges being held up due to the lack of cement. No bitumen emulsion was received for the Province of Cosenza for highways.

(2) Transport.

The seven Italian Army trucks now working on Military highways are being recalled on the first of September. This leaves no trucks for the Calabrian highways. The situation is very bad, in as much as this affects not only the metalling of the roads, but also the two projects on resurfacing. As yet no arrangements have been made with No. 3 District for other transportation. The Genio Civile at Cosenza has no transport for their engineers and are unable to get out on the job. No tyres have been received for civilians. This lack of transportation is seriously affecting the Public Works program in Calabria.

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17. REGION VIII (Regional Engineer, Major LEE, R.E.)(a) General Remarks.

In consequence of the forward movement of Army boundaries a very considerable extension of activities has taken place during August. This is particularly so in the case of bridge reconstruction and road maintenance, details of which are given below. Work is now being undertaken in Livorno, Pisa, Siena and Arezzo Provinces in addition to the many projects in the Province of Grosseto already reported. The former consists of work allocated by the 5th Army A.M.G., and the British Military units operating in Corps areas, also in No.1 District (Br.) and P.B.S.

(b) Staff and Personnel.

Owing to the fact that Regional H.Q. are not yet at their final location, it has not been possible fully to organize the work of this office, which will have to be done with Italian staff, and as a result considerable pressure of work on the technical officers and skeleton Italian staff has resulted. It is hoped to overcome this shortly, and every endeavour is being made to find suitable candidates for the vacancies by advance inquiries at the final location.

Major Richardson (A) reported for duty 11 Aug. 44, and is temporarily detached for duty in Florence.

(c) Highways and Bridges.

After considerable delay due to non-availability of materials etc., work on the bridges over the River ALBINTA on Route 1, and at MANCIANO and PIRIGLIANO on Route 74 is now proceeding.

An urgent demand for the reconstruction of the BRUNA road bridge leading to the RIBOLLA coal mine, to take both rail and road traffic was received from A.C.C. H.Q. The work was put in hand with all speed, working day and night shifts, and was completed 26 Aug 44, by the Genio Civile in conjunction with some military labour supplied through 73 CRE. Work was prolonged one day over schedule, owing to the sudden withdrawal of military labour before the completion of the work.

During the latter half of August a large area in rear of the new Army boundary was taken over by C's R.E. working with P.B.S., and No.1 District. Prior to this Chief Engineer (Wks) Rear 8th Army had refused to allow A.M.G. to co-operate on roads, on the ground that it was not in the usual functions of the Public Works and

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The position on Route 73 is not yet clear, but it would appear that certain civilian contractors have been given contracts to build bridges and retaining-walls by 6th Army, and that new the units have moved forward, they and the Genio Civile have been told that it is no longer an Army responsibility and that the Genio Civile must take over immediate responsibility for the work. Steps are being taken to obtain a ruling on the matter, and it is presumed that it will become an A.M.G. responsibility, as naturally unless finance is arranged the Genio Civile will not have the necessary funds. It is expected that all will be put in order shortly, but the matter is reported as an indication of the chaos caused by the refusal of 6th Army to accept co-operation.

(a) Public Works.

Works on the rehabilitation of essential services in towns and villages and essential repairs to land drainage, canals etc. is increasing and is now being undertaken in Grosseto, Livorno, Pisa and Siena provinces.

Works approved to date are as follows: -

Type of work:	No. of contracts:	Estimated cost:
Removal of debris etc.	16	3,995,890
Removal of dangerous walls	13	968,970
Repairs to aqueducts	14	2,635,000
Sewer Repairs	12	2,639,500
Bonifica repairs	3	2,380,000
Canal works	2	913,000
Misc. works	1	598,000
Totals	61	L. 13,968,210

All work is being carried out under the Genio Civile, and the Public Works Officer visits sites as often as possible.

(e) Electricity.

Distribution in Grosseto Province is now under control, and all essential mills etc. are in operation. An additional 500 KW is now being fed from Lardereia into the CME northern circuit which has been repaired down to Grosseto, and which

reported as an indicator of 8th Army to accept co-operation.

(a) Public Works.

Works on the rehabilitation of essential services in towns and villages and essential repairs to land drainage, canals etc. is increasing and is now being undertaken in Grosseto, Livorno, Pisa and Siena provinces.

Works approved to date are as follows: -

Type of work:	No. of contracts:	Estimated cost:
Removal of debris etc.	16	3,995,890
Removal of dangerous walls	13	968,970
Repairs to aqueducts	14	2,635,000
Sewer Repairs	12	2,639,500
Bonifica repairs	3	2,380,000
Canal works	2	913,000
Misc. works	1	598,000
Totals	61	L. 13,968,910

All work is being carried out under the Genio Civile, and the Public Works Officer visits sites as often as possible.

(e) Electricity.

Distribution in Grosseto Province is now under contract, and all essential mills etc. are in operation. An additional 500 KW is now being fed from Bardella into the GME northern circuit which has been repaired down to Grosseto, and which serves the coal mine at Ribolla and three essential flour mills.

150

An officer from H.Q. (Major Bell) is now in charge of the rehabilitation of the generating station at Bardonecchia. One 3000 KW set is in operation in accordance with the arrangements made by this office (see July report) and a second set of like capacity will be ready shortly.

The transmission line Bardonecchia-Volterra has been repaired and an allocation of 150 KW. was made by P.E.C. through 5th Army AMG which will enable essential services to be put into action. The group of small hydro-plants at COLLE d'ELSA are in operation at reduced output owing to shortage of water. They serve a restricted supply to Siena (mill, hospital etc.) and also for pumping water and running a mill and small industries at Colle. A rationing scheme is being worked out both for Siena and Colle in conjunction with AMI and the PG Siena Provinces.

(f) Florence.

At the request of 5th Army AMG we are assisting the SCAC Florence by dealing with Public Works matters in the City, and by maintaining contact with the different military units engaged on repairs to essential services. It has also been agreed that this office will arrange to have a survey of the electric consumption and distribution in the city, so that if necessary a rationing scheme can be put into operation when electric power is supplied from the South.

18. REGION IX (Regional Engineer, Major SPANN)(a) Remarks

Routine activities consisted of general planning in anticipation of the occupation of Region IX. All information that may be of use is being collected and data is compiled in our files. A book on sewers and water installations in Italy was secured from the A.C.C. library in Rome and the chapter on Emilia has been copied for our use.

All maps of the area have been turned over to this division for record and distribution to personnel and provincial officials.

Information is being sought and collated on the locality and productive possibilities of all engineering works, quarries, cement works, etc. capable of being used. A particular study had been made concerning electrical generating and distribution systems.

Studies are being made toward possibilities of the flooding of large areas of lowlying lands by the enemy, and as such information as possible is being sought covering system and pumping stations in operation. Directives will be prepared for the early location of damaged sluices or blown banks, in order to ascertain the points of ingress of flood waters and to localize their effects. Possibilities and methods of procedure will be studied so that plans can be made for repairs as occasions arise.

Plans are being made for the listing of Contractors and Engineers in the various categories, as rapidly as information is available.

Forms are being studied for the purpose of standardizing data on public works and utilities for record and use. A model form of report has been prepared for use in communes and provinces by officials to be submitted to this office.

(b) Staff and Personnel.

The personnel of this division at this time is as follows:-

Major W.M. Sparr (A)

Major W.H. Gamble (B)

Capt. E.H. Rogers (A)

Pfc. Anthony Campanelli (A)

Capt. Rogers is temporarily attached to A.M.G. 8th Army and is making a study of hydro-electric installation in

and productive possibilities of all engineering works, present works, etc. capable of being used. A particular study had been made concerning electrical generating and distribution systems.

Studies are being made toward possibilities of the flooding of large areas of lowlying lands by the enemy, and as much information as possible is being sought covering system and pumping stations in operation. Directives will be prepared for the early location of damaged sluices or blown banks, in order to ascertain the points of ingress of flood waters and to localize their effects. Possibilities and methods of procedures will be studied so that plans can be made for repairs as occasions arise.

Plans are being made for the listing of Contractors and Engineers in the various categories, as rapidly as information is available.

Forms are being studied for the purpose of standardizing data on public works and utilities for record and use. A model form of report has been prepared for use in communes and provinces by officials to be submitted to this office.

(b) Staff and Personnel.

The personnel of this division at this time is as follows:-

Major W.M. Spann (A)

Major W.H. Gamble (R)

Capt. E.H. Rogers (A)

Pfc. Anthony Campanella (A)

149

Capt. Rogers is temporarily attached to A.M.G. 8th Army and is making a study of hydro-electric installation in that area.

(c) Inspection Tours.

Contacts were made with 8th Army A.M.G., group Captain Benson, and the Chief Engineer of District 1, Brigadier Lindsay, in order to become familiar with procedure of operations and to maintain connection for cooperation in activities.

(d) Military Highways.

Designation has been made of Highways Nr. 16 and 9 from Ancona to Bologna for first priority.

(e) Public Works and Utilities.

Plans are in progress to make condition studies on all public works and utilities as soon as possible after we enter the region.

All work will be done in connection with 5th and 8th Army A.M.G. personnel and through liaison personnel connected with District 1 and P.D.S.

(f) General.

Technical personnel from available Italians have been requested for use in securing compiling data.

been requested for use in securing and compiling data.

= 54 =

19. REGION XII (Regional Engineer, Col. EDWARDS).

The Region moved into Chiandiano as Region "2" on August 7, 1944.

Capt. E.B. Tolman reported during the month.

Public Works.

Public Utilities.

Highways.

Communications.

Material was collected and stored on conditions and installations in the new area.

E.A. JENNY,
Lt-Colonel, C.E.,
Director.

L.A. JENNY,
Lt-Colonel, G.E.,
Director.

148

= 55 =

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

CENTRAL ITALY

Report on the availability of electrical energy in Central Italy progressively for the six months ending Feb. 28th 1945.

Also estimated requirements of electrical energy for Military, essential Civilian and factory rehabilitation in Central Italy for the same period.

Prepared by the Electrical Division
Public Works and Utilities Sub-Commission
ALLIED CONTROL COMMISSION
26th August 1944

L.A. Jenny

L.A. JENNY,
Lt. Colonel, C.E.,
Director.

147

Prepared by the Electrical Division
Public Works and Utilities Sub-Commission
ALLIED CONTROL COMMISSION
26th August 1944

L.A. JENNY
Lt. Colonel, C.E.,
Director.

147

W.M. LAPPER
Lt. Colonel,
Chief Electrical Divn.

TABLE "A"

Summary of Electrical plant and requirements

- (1) Showing the demand for electrical energy in Central Italy which will be required for the Months of Sept. to Feb. inclusive for Military and essential civilian needs.
- (2) Showing the effective output capacity of the available generating plant in Central Italy for the Months of Sept. 1944 to Feb. 1945 inclusive. This capacity is made up as follows:-
- (a) Capacity of plant at present in operation
 - (b) Additional Capacity from repaired plant
 - (c) Additional Capacity from Transfer of plant
 - (d) Additional winter output due to rainfall
- (3) The final line "deficit" indicates the amount of shortage in Kilowatts of output capacity if the factories listed on Table "Q" are put into operation.

TABLE "A"

	1944				1945	
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
	KW	KW	KW	KW	KW	KW
(1) Estimated Demand	136,950	147,900	166,800	184,750	186,250	186,750
(2) Generating Plant Effective Output Capacity	58,000	76,000	88,000	114,000	135,000	154,000
(3) Deficit	78,950	71,900	78,800	70,750	31,250	32,750

146

Sept. 1944 to Feb. 1945 inclusive. This capacity is made up as follows:-

- (a) Capacity of plant at present in operation
- (b) Additional Capacity from repaired plant
- (c) Additional Capacity from Transfer of plant
- (d) Additional winter output due to rainfall

- (3) The final line "deficit" indicates the amount of shortage in Kilowatts of output capacity if the factories listed on Table "G" are put into operation.

TABLE "A"

	1944				1945	
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
	KW	KW	KW	KW	KW	KW
(1) Estimated Demand	136,950	147,900	166,800	184,750	186,250	186,750
Generating Plant Effective Output Capacity	58,000	76,000	88,000	114,000	155,000	154,000
(3) Deficit	78,950	71,900	78,800	70,750	31,250	32,750

146

NOTE. Under the output capacity weight has been given to increased availability of water due to rainfall which will fall away beginning in March (see Table "E", page 6)

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

Report on the availability of Electric energy in Central Italy
and reduction in generating capacity due to the destruction of
plants by the enemy.

- (1) The retreating enemy systematically destroyed by mining the Hydro Electric Generating Units, switchgear transformers and auxiliary equipment. This effectively destroyed many of the plants and as care was taken to destroy similar parts in each plant the rehabilitation work is necessarily slowed down. Considerable damage was also done to Transmission Lines and Sub Stations, much copper conductor was taken away and about 60% of the high voltage towers were brought down by mining.
- (2) Many castings, forgings and machined parts will have to be made to carry out the repairs. These are in hand and good progress is being made but lack of electric energy for the steelworks and the many Machine Shops which it is desired to operate is causing the repair programme to be delayed.
- (3) Out of the sixty important hydro Electric Stations damaged by the enemy it is only possible to effect repairs to sixteen within the next six months. Of the other forty-four generating Stations thirty are totally destroyed and beyond repair and fourteen can be repaired during the next twelve months.
- (4) At the present time there is available only 57,030 KW of output capacity, and this includes about 30,000 KW of steam plant in Rome which was undamaged by the enemy. The summer season output capacity in Central Italy, prior to the damage, was 862,000 KW so that with the present capacity standing at 57,030 KW there is 93% of the plant out of use due to enemy action at the present time.
- (5) Briefly, therefore, the present position is as follows.

(a) Original Summer Output Capacity	862,000	KW
(b) Present Output Capacity	57,030	KW
(c) Loss due to enemy action	804,970	KW
(d) Percentage loss	93	%

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(a) Original Summer Output Capacity	862,000	KW
(b) Present Output Capacity	57,030	KW
(c) Loss due to enemy action	804,970	KW
(d) Percentage loss	93	%

(6) With regard to the rehabilitation programme everything possible is being done to obtain additional output capacity by repairs to damaged plant and by transfer of plants, and the following Tables will show the details of the present generating capacity and the additions which may be expected during the next six months.

TABLE "B"

7. Showing the output capacity of the Generating Stations operating in connection with the Grid System in Central Italy at 26th August 1944.

Name of Station (1)	Location of Station (2)	Output Capacity at 26th Aug. 44 KW (3)
Terni (Steel)	Terni	550
Terni (old)	Terni	200
Farindola	Pescara	450
Bolognola	Macerata	700
Carassai	Ascoli P.	450
Pedaso	Ascoli P.	1,100
Altolina	Perugia	600
9 Small Stat.	Unes	730
Steen (Viscosa)	Rieti	650
Steen & Diesel	Rome	30,000
Vulci	Rome	1,100
Treponzo	Viterbo	550
S.Savino	do	750
Fioritella	do	750
Nera Montero	Terni	7,350
Vesta	Rome	2,000
Arci	do	1,300
Subiaco	do	2,500
Scalette	Prosinone	2,100
Comunacqua	do	2,500
Cardinale	Viterbo	40
Forche	do	160
TOTAL Output Capacity		57,030

Station (1)	Station (2)	at 26th Aug. 44 KW (3)
Terni (Steel)	Terni	550
Terni (old)	Terni	200
Farindola	Pescara	450
Bolognola	Macerata	700
Carassai	Ascoli P.	450
Pedaso	Ascoli P.	1,100
Altolina	Perugia	600
9 Small Stat.	Unes	730
Steen (Viscosa)	Rieti	650
Steen & Diesel	Rome	30,000
Vulci	Rome	1,100
Trapenzo	Viterbo	550
S. Savino	do	750
Pioritella	do	750
Nera Montoro	Terni	7,850
Vesta	Rome	2,000
Arci	do	1,300
Subiaco	do	2,500
Scalelle	Frosinone	2,100
Comunacqua	do	2,500
Cardinale	Viterbo	40
Forche	do	150
TOTAL Output Capacity		57,030

144

= 3 =

TABLE "C"

8. Showing the output capacity of the Generating Plant connected to the Grid System which is now under repair and the anticipated date of completion.

Name of Station (1)	Location of Station (2)	Output Capacity KW (3)	Anticipated date of Completion (4)
Cervara	Terni	1,600	Aug. 31
Larderello	Pisa	3,000	Aug. 31
Tarquiniia Paper Mill	Rome	200	Aug. 31
Terni Plate Mill	Terni	2,000	Aug. 31
Larderello	Pisa	3,000	Sep. 30
Cervara	Terni	1,600	do
Jutificio Terni	Terni	1,100	do
Cepreno	Prosimone	9,000	Oct. 31
Cervara	Terni	1,600	do
Ferfa II	Rome	4,200	Nov. 15
Cervara	Terni	1,600	Nov. 30
Ponte Fiume	Prosimone	3,200	Nov. 30
Canterno	Rome	10,000	Dec. 15
Cervara	Terni	1,600	Dec. 31
Galletto	Terni	35,000	Jan. 10
Castel Madama	Rome	4,000	Jan. 31
Mandela	Rome	4,000	do
Cervara	Terni	1,600	Jan. 31
TOTAL Output Capacity		88,300	

(1)	(2)	(3)	(4)
Cervara	Terni	1,600	Aug. 31
Larderello	Pisa	3,000	Aug. 31
Terquinia Paper Mill	Rome	200	Aug. 31
Terni Plate Mill	Cervi	2,000	Aug. 31
Larderello	Pisa	3,000	Sep. 30
Cervara	Terni	1,600	do
Intificio Terni	Terni	1,100	do
Copprano	Frosinone	9,000	Oct. 31
Cervara	Terni	1,600	do
Parfa II	Rome	4,200	Nov. 15
Cervara	Terni	1,600	Nov. 30
Ponte Fiume	Frosinone	3,200	Nov. 30
Canterno	Rome	10,000	Dec. 15
Cervara	Terni	1,600	Dec. 31
Galletto	Terni	35,000	Jan. 10
Castel Madama	Rome	4,000	Jan. 31
Mandola	Rome	4,000	do
Cervara	Terni	1,600	Jan. 31
TOTAL Output Capacity		88,300	

TABLE "D"

9. Showing the output capacity of the generating plant which is being moved to assist in the rehabilitation programme.

Name of Station receiving plant (1)	Location of Station (2)	Output Capacity KW (3)	Anticipated date of Completion (4)
<u>Acquoria Vescovelli</u> set from Ceperano	Rome	3,500	Dec. 15
<u>Pettorano</u> 2 sets from Carassai	L'Aquila	320	Jan. 10
<u>Molina</u> set from Guglicnesi	L'Aquila	250	Jan. 10
<u>Castellano</u> set from Pedaso	Ascoli P.	2,250	Jan. 15
TOTAL Output Capacity		6,320	

In addition to the above programme of plant movement the following arrangements have been made.

CALORE

A 6,000 KW set now being dismantled and repaired will be packed ready for shipment to destination unknown.

MATESE II

The 3,000 KW set brought over from Sicily by A.C.C. will not now be installed. This is being packed ready for shipment to destination unknown.

<u>Accuoria Vescevali</u> set from Ceprano	Rome	3,500	Dec. 15
<u>Pettorano</u> 2 sets from Carassai	L'Aquila	320	Jan. 10
<u>Molina</u> set from Guglionesi	L'Aquila	250	Jan. 10
<u>Castellano</u> set from Pedaso	Ascoli P.	2,250	Jan. 15
TOTAL Output Capacity		6,320	

In addition to the above programme of plant movement the following arrangements have been made.

CALORE

A 8,000 KW set now being dismantled and repaired will be packed ready for shipment to destination unknown.

MATESE II

The 3,000 KW set brought over from Sicily by A.C.C. will not now be installed. This is being packed ready for shipment to destination unknown.

TABLE "E"

10. Showing the output Capacity at present, from repaired plants, by transfer of plants and the additional output to be expected during the winter months due to rainfall.

	Sept. KW	Oct. KW	Nov. KW	Dec. KW	Jan. KW	Feb. KW
Present output Capacity	57,030	57,030	57,030	57,030	57,030	57,030
Output capacity from repaired plants	6,800	18,500	23,100	41,500	78,700	88,300
Output capacity from transfer of plants	--	--	--	3,500	6,320	6,320
Output capacity from increase in water	--	9,000	18,000	25,000	30,000	20,000
TOTAL	63,830	84,530	98,130	127,030	172,050	171,650
Est minimum outage for breakdown and repairs 10%	6,383	8,453	9,813	12,703	17,205	17,165
						141

Present output Capacity	57,030	57,030	57,030	57,030	57,030	57,030	57,030
Output capacity from repaired plants	6,800	18,500	23,100	41,500	78,700	88,300	
Output capacity from transfer of plants	--	--	--	3,500	6,320	6,320	
Output capacity from increase in water	--	9,000	18,000	25,000	30,000	20,000	
TOTAL	63,830	84,530	98,130	127,030	172,050	171,650	
Est minimum outage for breakdown and repairs 10%	6,383	8,453	9,813	12,703	17,205	17,165	
Effective output capacity	57,447	76,077	88,317	114,327	154,845	154,485	
SAY	58,000	76,000	88,000	114,000	155,000	154,000	

= 6 =

11. Electricity requirements in Central Italy for Military and essential Civilian Need.

The total electricity available in Central Italy at the present time is 57,030 KW and this is divided between the various districts as follows.

<u>Rome</u>	Thermal	30,000	KW
	Hydro	8,200	KW
<u>Terni</u>		10,500	KW
<u>Ancona</u>		5,330	KW
<u>Civitavecchia</u>		3,000	KW
		<u>57,030</u>	<u>KW</u>

Dealing with each of these supplies separately and analysing the users of the electricity it is found that:

Rome: The situation in Rome is that the military needs are practically all being met, but that the essential civilian supply is still below requirements. About 80% of the available energy is used for military and essential civilian services. Many of the high Buildings depend on electrically driven pumps to lift water to the top flats. These and many small factories, essential to the life of the city, are still without Electricity. It is estimated that a minimum of 10,000 KW of additional energy is required to meet this need. In addition to this the civilian requirements for lighting of homes and for domestic use are only supplied to the extent of 20% of actual needs and if this is to be ameliorated it is estimated that a further 20,000 KW of energy is required.

<u>Terni</u>	10,500 KW
<u>Ancona</u>	5,330 KW
<u>Civitavecchia</u>	3,000 KW
	<u>57,830 KW</u>

Dealing with each of these supplies separately and analysing the users of the electricity it is found that:

Rome: The situation in Rome is that the military needs are practically all being met, but that the essential civilian supply is still below requirements. About 80% of the available energy is used for military and essential civilian services. Many of the high Buildings depend on electrically driven pumps to lift water to the top flats. These and many small factories, essential to the life of the city, are still without Electricity. It is estimated that a minimum of 10,000 KW of additional energy is required to meet this need. In addition to this the civilian requirements for lighting of homes and for domestic use are only supplied to the extent of 20% of actual needs and if this is to be ameliorated it is estimated that a further 20,000 KW of energy is required.

Summary for Rome

(a) Military use	30% of	Total	11,460 KW
(b) Essential Civilian	40% "	"	15,280 KW
(c) Tramways classed as Military and essential Civilian	10% "	"	3,820 KW
(d) Civilian use	20% "	"	7,640 KW
	100%		<u>38,200 KW</u>

140

Estimated additional Requirements for Rome

(a) Military use	Nil
(b) Essential Civilian	10,000 KW
(c) Tramways	3,000 KW
(d) Civilian use	20,000 KW
Total Estimated additional requirements for Rome	33,000 KW

(If this supply were made available the total Electricity Demand for Rome would be 71,200 KW or approx 70% of the normal requirements at this season. This would fulfil the essential requirements. However, electricity would still have to be strictly rationed)

Terni: Investigation shows 95% of the available energy allocated to this area is taken by the military and essential civilian services. The Military use is for Steelworks, Factories, Hospitals and Bilets directly under their control and the essential Civilian needs consist mainly of Water, Sewage, Hospitals, Flour Mills, Bakeries small essential workshops, and limited service of Electric Trams for taking workers to and from factories.

Summary for Terni

(a) Military use	75% of Total	7,875 KW
(b) Essential Civilian	15% "	1,575 KW
(c) Tramways classed as Military and essential Civilian	5% "	525 KW
(d) Civilian use	5% "	525 KW
	100%	10,500 KW

Ancona and Civitavecchia:

The Military and essential civilian use of Electricity at these places is similar to Terni and less than 5% is available for civilian use.

season. This would fulfill the essential requirements. However, electricity would still have to be strictly rationed)

Terni: Investigation shows 95% of the available energy allocated to this area is taken by the military and essential civilian services. The military use is for Steelworks, Factories, Hospitals and Billets directly under their control and the essential civilian needs consist mainly of Water, Sewage, Hospitals, Flour Mills, Bakeries small essential workshops, and limited service of Electric Trams for taking workers to and from factories.

Summary for Terni

(a) Military use	75%	of	Total	7,875	KW
(b) Essential Civilian	15%	"	"	1,575	KW
(c) Tramways classed as Military and essential Civilian	5%	"	"	525	KW
(d) Civilian use	5%	"	"	525	KW
	100%			10,500	KW

Ancona and Civitavecchia:

The Military and essential civilian use of Electricity at these places is similar to Terni and less than 5% is available for civilian use.

139

12. The following summary shows at a glance the division of the available electricity which is allocated by the Allied Force Local (Italian) Board, Electrical Committee, to the various districts.

TABLE "F"

13. Showing the division of the available electricity in Central Italy. The allocation of this energy for the Military and essential civilian services is decided by the Local Resources Italian Board, Electrical Committee, which is composed of representatives of all the military agencies concerned. Strict rationing of the civilian supply is done by A.C.C. in order that Military demands may be met.

District to which the allotment is made	Military use KW	Essential Civilian KW	Civilian KW	Total for District KW
ROME	13,370 (35%)	17,120 (45%)	7,640 (20%)	38,200 (100%)
TERNI	8,090 (77%)	1,890 (18%)	520 (5%)	10,500 (100%)
ANCONA	4,270 (80%)	850 (16%)	210 (4%)	5,330 (100%)
CIVITAVECCHIA	2,400 (80%)	480 (16%)	120 (4%)	3,000 (100%)
TOTAL	28,130 (50%)	20,410 (35%)	8,490 (15%)	57,030 (100%)

District to which the allotment is made	Military use KW	Essential Civilian KW	Civilian KW	Total for Districts KW
ROME	13,370 (35%)	17,190 (45%)	7,640 (20%)	38,200 (100%)
TERNI	8,090 (77%)	1,890 (18%)	520 (5%)	10,500 (100%)
ANCONA	4,270 (80%)	850 (16%)	210 (4%)	5,330 (100%)
CIVITAVECCHIA	2,400 (80%)	480 (16%)	120 (4%)	3,000 (100%)
TOTAL	28,130 (50%)	20,410 (35%)	8,490 (15%)	57,030 (100%)

138

Tramway Demand has been divided between Military and essential civilian.

14. Anticipated additional Military Requirements.

The military have already asked for an additional 4,000 KW of demand as soon as this can be made available. Furthermore, they will require further supplies for additional factories and workshops which will be operated under their direction. It is estimated therefore that the military will require an additional 15,000 KW in Central Italy.

15. Anticipated Factory Requirements.

This deals only with the rehabilitation of those specific factories which will assist the war effort and which will in most instances reduce the amount of shipping to this theater of operation.

	Tonnage Produced per Month	Import Tonnage Saved per Month	Kilowatts Required
--	----------------------------------	--------------------------------------	-----------------------

a) Terni-Nera MontoroAmmonia Works

Ammonia is urgently needed for

- 1) Refrigeration)
- 2) 30 tons per month for)
- Solvay Soda Works at)
- Rosignano)
- 3) Fertilizers)

8,000

560

180

b) Ariene Caustic Soda andChlorine Works

At each plant:

- 1) Rome) 400 tons caustic
soda
- 2) Rosignano) plus
350 tons chlorine

6,500

1,300

1,500

c) Solvay Soda Works -Rosignano Area

- 1) San Vincenzo) 100 Tons/day
Caustic Soda
- 2) Ponte Cincori) 100 Tons/day
Soda Ash

500

4,200

6,000

137

most instances reduce the amount of shipping to this theater of operation.

	Tonnage Produced per Month	Import Tonnage Saved per Month	Kilowatts Required
a) <u>Terni-Nera Montoro</u> <u>Ammonia Works</u>			
Ammonia is urgently needed for			
1) Refrigeration)			
2) 30 tons per month for)			
Solvay Soda Works at)	180	560	8,000
Rosignano)			
3) Fertilizers)			
b) <u>Aniene Caustic Soda and</u> <u>Chlorine Works</u>			
At each plant:			
1) Rome)			
2) Rosignano) plus)	1,500	1,300	6,500
350 tons chlorine)			
c) <u>Solvay Soda Works -</u> <u>Rosignano Area</u>			
1) San Vincenzo) 100 Tons/day)			
Caustic Soda)			
2) Ponte Gincri) 100 Tons/day)	6,000	4,200	500
Soda Ash)			137
d) <u>Cisa Viscosa</u>			
1) Rieti) Fabric for)	200		1,200
2) Rome) clothing)			
e) <u>Cisa Viscosa</u>			
Colle Statte) Carbon)	500	500	3,000
Bisulfide)			

= 10 =

	Tonnage Produced per Month	Import Tonnage Saved per Month	Kilowatts Required
<u>f) Terni Steel Works</u>			
1) Steel	9,000	9,000	4,000
2) Bosco Terni	500	500	500
<u>g) Polonice</u>			
1) Cast Iron	600	600	400
<u>h) Cement Mills</u>			
1) Colle Ferro)	10,000	7,500	2,500
2) Spoleto)	8,000	8,000	2,000
3) Civitavecchia)	8,000	6,000	2,000
<u>i) Paper Mills</u>			
1) Isola di Liri)			3,000
2) Ceprano)			800
3) Tivoli)	350	350	500
4) Rome)			700
<u>j) Mining</u>			
Spoleto Lignite Mines	20,000	20,000	1,200
<u>k) Flour Mills</u>			
	30,000	30,000	4,000
TOTAL	94,830	88,510	40,800

16. From the above analysis of the requirements of a few of the most important factories it will be seen that nearly ninety thousand tons of material can be produced in Italy from local resources and thus save an equivalent amount of shipping now being brought into this theater of operations.

<u>h) Cement Mills</u>					
1) Colle Ferro)	10,000	7,500	2,500		
2) Spoleto)	8,000	8,000	2,000		
3) Civitavecchia)	6,000	6,000	2,000		
<u>i) Paper Mills</u>					
1) Isola di Liri)			3,000		
2) Ceperano)			800		
3) Tivoli)	350	350	500		
4) Rome)			700		
<u>j) Mining</u>					
Spoleto Lignite Mines	20,000	20,000	1,200		
<u>k) Flour Mills</u>					
	30,000	30,000	4,000		
TOTAL	94,830	88,510	40,800		

136

16. From the above analysis of the requirements of a few of the most important factories it will be seen that nearly ninety thousand tons of material can be produced in Italy from local resources and thus save an equivalent amount of shipping now being brought into this theater of operations.

TABLE "G"

17. Summary of future anticipated demand for electric energy for the period 1 September 1944 to 28 February 1945.

Nature of Consumers	Kilowatt Demand	Need
Agriculture	3,500	(a) Essential civilian
Cast Iron Foundry	400	(a) Essential civilian (b) Saves shipping space
Cement Mills	6,500	(a) Military (b) Civilian rehabilitation (c) Saves shipping space
Ceramics and Glass	1,000	(a) Essential civilian
Chemicals	18,000	(a) Essential civilian (b) Saves shipping space
Clothing	200	(a) Essential civilian
Fabric	1,200	(a) Essential civilian
Flour Mills	4,000	(a) Essential civilian
Food (excluding Flour mills)	6,900	(a) Essential civilian
Hemp and Jute	650	(a) Essential civilian
Lumber	4,000	(a) Military (b) Essential civilian
Machinery Manufacturing	3,000	(a) Essential civilian
Military	15,000	(a) Workshops and factories

135

Cast Iron Foundry	400	(a) Essential civilian (b) Saves shipping space
Cement Mills	6,500	(a) Military (b) Civilian rehabilitation (c) Saves shipping space
Ceramics and Glass	1,000	(a) Essential civilian
Chemicals	18,000	(a) Essential civilian (b) Saves shipping space
Clothing	200	(a) Essential civilian
Fabric	1,200	(a) Essential civilian
Flour Mills	4,000	(a) Essential civilian
Food (excluding Flour mills)	6,900	(a) Essential civilian
Hemp and Jute	650	(a) Essential civilian
Lumber	4,000	(a) Military (b) Essential civilian
Machinery Manufacturing	3,000	(a) Essential civilian
Military	15,000	(a) Workshops and factories
Mining	1,200	(a) Military (b) Essential civilian (c) Saves shipping space

= 12 =

TABLE "G" (Contd.)

Nature of Consumers	Kilowatt Demand	Need
Paper Mills	5,000	(a) Essential civilian (b) Saves shipping
Printing	500	(a) Essential civilian
Public Institutions	6,000	(a) Essential civilian
Railways	15,000	(a) Military (b) Essential civilian
Rome	13,000	(a) Essential civilian
Rome	20,000	(a) Civilian
Steel Plant	4,000	(a) Military (b) Essential civilian (c) Saves shipping space
Steel Fabricators	500	(a) Military (b) Essential civilian
TOTAL	129,650	

Public Institutions	5,000	(a) Essential civilian
Railways	15,000	(a) Military (b) Essential civilian
Rome	13,000	(a) Essential civilian
Rome	20,000	(a) Civilian
Steel plant	4,000	(a) Military (b) Essential civilian (c) Saves shipping space
Steel Fabricators	500	(a) Military (b) Essential civilian
TOTAL	129,650	

134

= 13 =

18. Details are given below on specific plants which would be capable of operating if electricity were available.

TERNI - NERA MONTORO AMMONIA WORKS

Plant Condition:

Good. Capable of limited output.

Product:

Ammonia and compounds. 90 Tons during September - November. 180 Tons during December - February.

Uses:

Essential civilian for

- (a) Refrigeration
- (b) Solvay Soda plant at Rosignano where caustic soda, soda ash and sodium bicarbonate are produced (Sisposition of products of Rosignano plant given later).
- (c) Fertilizer. (Four tons of fertilizer can be made from each ton of ammonium sulphate.

Necessary Raw Materials and their Sources:

- (a) Coal, either imported or Sardinian.
- (b) Pyrites (available in Tuscany)
- (c) Limestone (available locally)

ANIERE CAUSTIC SODA AND CHLORINE WORKS

Rome Plant

Plant Condition:

Good.

Products:

400 Tons/month Caustic Soda, plus
350 Tons/month of chlorine.

Uses:

Essential civilian for

- (a) Refrigeration
- (b) Solvay Soda plant at Rosignano where caustic soda, soda ash and sodium bicarbonate are produced (Sisposition of products of Rosignano plant given later).
- (c) Fertilizer. (Four tons of fertilizer can be made from each ton of ammonium sulphate.

Necessary Raw Materials and their Sources:

- (a) Coal, either imported or Sardinian.
- (b) Pyrites (available in Tuscany)
- (c) Limestone (available locally)

ANIENE CAUSTIC SODA and CHLORINE WORKS

Rome Plant

Plant Condition:

Good.

Products:

400 Tons/Month Caustic Soda, plus
350 Tons/Month of chlorine.

= 14 =

Uses:

Caustic Soda needed for essential civilian use for

- (a) Manufacture of soap
- (b) Refining of olive oil
- (c) Manufacture of rayon

Chlorine and chlorine products needed for

- (a) Water purification
- (b) Textile bleaching

Necessary Raw Materials and their Sources:

- (a) 200 Tons/Month imported sodium chloride.
- (b) Limestone (available locally)

Rosignano Plant:Plant Condition:

Partially damaged but capable of limited operation.

Products:

450 Tons/Month of Caustic Soda plus
350 Tons/Month of chlorine.

Uses:

Same as products of Rome plant

Necessary Raw Materials and their Sources:

- (a) Sodium Chloride (available locally)
- (b) Limestone (available locally)

SOLVAY SODA WORKS - ROSIGNANO AREAProducts:

Essential civilian

- (a) Caustic Soda) 3000 Tons/Month of each
) during October and November.
- (b) Soda Ash) 6000 Tons/Month during
) December-February.

Uses:

(b) Textile bleaching

Necessary Raw Materials and their Sources:

- (a) 200 Tons/Month imported sodium chloride.
- (b) Limestone (available locally)

Rosignano Plant:

Plant Condition:

Partially damaged but capable of limited operation.

Products:

450 Tons/Month of Caustic Soda plus
350 Tons/Month of chlorine.

Uses:

Same as products of Rome plant

Necessary Raw Materials and their Sources:

- (a) Sodium Chloride (available locally)
- (b) Limestone (available locally)

SOLVAY SODA WORKS - ROSIGNANO AREA

132

Products:

Essential civilian

- (a) Caustic Soda) 3000 Tons/Month of each
) during October and November.
) 6000 Tons/Month during
) December-February.
- (b) Soda Ash

Uses:

Caustic Soda is used for

- (a) Soap manufacture
- (b) Olive oil refining
- (c) Synthetic fibers

Uses:

Soda Ash is used for

(a) Glass and Ceramics

(b) Textiles

(c) Paper

(d) Caustic Soda and other chemicals

Necessary Raw Materials and their Sources:

(a) Sodium chloride (available locally)

(b) Limestone (available locally)

(c) Ammonia (available locally)

(d) Coke (from imported coal)
about 1500 Tons of coal per month.

Plant Condition:

Good.

CISA VISCOSE PLANTS AT ROME AND RIETICondition of Plants:

Good.

Products:

Rayon (continuous)

Piocco (staple fiber)

Total production - 200 Tons/Month
beginning 1 November.

Uses:

Essential civilian-clothings

Necessary Raw Materials and their Sources:

(a) Caustic Soda (available locally)

(b) Carbon bisulfide (from Colle Statte plant)

(c) Sulphuric acid (available locally)

(d) Cellulose (must be imported, but some
available for initial operation)
Will have to import one ton of

(c) Ammonia (available locally)
(d) Coke (from imported coal)
about 1500 Tons of coal per month.

Plant Condition:

Good.

CISA VISCOOSA PLANTS AT ROME AND RIETI

Condition of Plants:

Good.

Products:

Rayon (continuous)

Pioceo (staple fiber)

Total production - 200 Tons/Month
beginning 1 November.

Uses:

Essential civilian-clothing

Necessary Raw Materials and their Sources:

- (a) Caustic Soda (available locally)
- (b) Carbon bisulfide (from Colle Statte plant)
- (c) Sulphuric acid (available locally)
- (d) Cellulose (must be imported, but some available for initial operation)
Will have to import one ton of cellulose per ton of finished product.

= 16 =

CISA VISCOSA - COLLE STATTECondition of Plant:

Good.

Product:Carbon bisulfide, 500 Tons/Month,
beginning 1 September.Uses:

Essential civilian for

(a) Preservation of grain

(b) Extraction of olive oil

(c) Manufacture of synthetic fiber

Necessary Raw Materials and their Sources:

(a) Sulphur (available locally)

(b) Charcoal (available locally)

TERNI STEEL WORKSCondition of Plant:

Good

Products:Steel and Iron ingots, steel castings,
used in turn to make: Sheets, plate,
sections, forgings, locomotive tires,
in accordance with the following:

<u>Month</u>	<u>Weight of ingots and castings in tons</u>
Sept.	3,500
Oct.	3,500
Nov.	5,500
Dec.	5,500
Jan.	2,700
Feb.	8,700

Uses:Military for construction and repairs
Essential civilian

- (a) Preservation of grain
 (b) Extraction of olive oil
 (c) Manufacture of synthetic fiber
- Necessary Raw Materials and their Sources:
- (a) Sulphur (available locally)
 (b) Charcoal (available locally)

TERMI STEEL WORKS

Condition of Plant:

Good

Products:

Steel and Iron ingots, steel castings, used in turn to make: Sheets, plate, sections, forgings, locomotive tires, in accordance with the following:

<u>Month</u>	<u>Weight of ingots and castings in tons</u>
Sept.	3,500
Oct.	3,500
Nov.	5,500
Dec.	5,500
Jan.	8,700
Feb.	8,700

Uses:

Military for construction and repairs
 Essential civilian for rehabilitation
 of heavy industries, and Electric
 Power Plants.

= 17 =

Necessary Raw Materials and their Sources:

A large number of locally available raw materials are required. The imported materials necessary are:

- (a) Coal 1900 Tons/Month
- (b) Chromite 29 Tons/Month
- (c) Magnesite 27 Tons/Month
- (d) Chamotte 40 Tons/Month

CEMENT MILLSCondition of Plants:

Generally good.

Uses:

Building material for military purposes, and for essential civilian rehabilitation.

Product:

Cement in accordance with following:

<u>Month</u>	<u>Weight of Cement in Tons</u>
Sept.	12,000
Oct.	14,000
Nov.	20,000
Dec.	22,000
Jan.	24,000
Feb.	26,000

Necessary Raw Materials and their Sources:

- (a) Shale (available locally)
- (b) Limestone (available locally)
- (c) Refractories (available locally)
- (d) Coal (imported for Colle Ferro and Civitavecchia)
 - (1) British or American Coal 3,600 Tons/Month
 - (2) Sardinian Coal 4,500 Tons/Month
- (e) Coal-Lignite at Spoleto and available.

CEMENT MILLS

Condition of Plants:

Generally good.

Uses:

Building material for military purposes, and for essential civilian rehabilitation.

Product:

Cement in accordance with following:

<u>Month</u>	<u>Weight of Cement in Tons</u>
Sept.	12,000
Oct.	14,000
Nov.	20,000
Dec.	22,000
Jan.	24,000
Feb.	26,000

Necessary Raw Materials and their Sources:

- (a) Shale (available locally)
- (b) Limestone (available locally)
- (c) Refractories (available locally)
- (d) Coal (imported for Colle Ferro and Civitavecchia)
 - (1) British or American Coal 3,600 Tons/Month
 - (2) Sardinian Coal 4,500 Tons/Month
- (e) Coal-Lignite at Spoleto and available.

= 18 =

130

PAPER MILLS

Condition of Plants:

Good.

Products:

350 Tons/Month Newsprint,
beginning 1 September.

Uses:

Publishing

Necessary Raw Materials and their Sources:

- (a) Cellulose (produced locally at plants)
- (b) Straw (available locally)
- (c) Sodium chloride (available locally)

SPOLETO LIGNITE MINE

Mine Condition:

Good.

Product:

Lignite Coal at the following rate:

<u>Month</u>	<u>Tons Produced</u>
Sept.	10,000
Oct.	13,000
Nov.	16,000
Dec.	20,000
Jan.	20,000
Feb.	20,000

Uses:

Production of manufactured gas and
electricity in Rome.
Steam production in industrial plants.

Necessary Raw Materials:

None

SPOLETO LIGNITE MINE

- (a) Cellulose (produced locally at plants)
- (b) Straw (available locally)
- (c) Sodium chloride (available locally)

Mine Condition:

Good.

Product:

Lignite Coal at the following rate:

<u>Month</u>	<u>Tons Produced</u>
Sept.	10,000
Oct.	13,000
Nov.	16,000
Dec.	20,000
Jan.	20,000
Feb.	20,000

Uses:

Production of manufactured gas and electricity in Rome.
Steam production in industrial plants.

Necessary Raw Materials:

None

FLOUR MILLS

Condition of Mills:

Good.

Product:

30,000 Tons flour/Month

Uses:

Essential Civilian food

Necessary Raw Materials:

Local wheat

BOSCO TERRI

Condition of Plant:

Good.

Products:

500 Tons/Month

Fabricated steel

Uses:

Military (Bridge material)

Essential Civilian rehabilitation

Necessary Raw Materials:

Scrap steel

Acetylene

Oxygen

Coal (imported) for foundry.

Essential Civilian Food

Necessary Raw Materials:

Local wheat

BOSCO TERNI

Condition of Plant:

Good.

Products:

500 Tons/Month
Fabricated steel

Uses:

Military (Bridge material)
Essential Civilian rehabilitation

Necessary Raw Materials:

Scrap steel
Acetylene
Oxygen
Coal (imported) for foundry.

TABLE "H"

19. Showing the monthly requirements in Kilowatts for the demands listed in Table "G".

	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
	KW	KW	KW	KW	KW	KW
<u>Terni - Pavigno Carbide Works</u>	9,000	12,000	15,000	18,000	18,000	18,000
<u>Terni Nera Montoro Ammonia Works</u>	4,000	4,000	4,000	8,000	8,000	8,000
<u>Aniene Caustic Soda and Chlorine Works (Rome & Rosignano)</u>	6,500	6,500	6,500	6,500	6,500	6,500
<u>Solvay Soda Works</u>	0	250	250	500	500	500
<u>Cisa Viscosa Works at Rome and Rieti</u>	0	0	1,200	1,200	1,200	1,200
<u>Cisa Viscosa Works at Colle Statte</u>	3,000	3,000	3,000	3,000	3,000	3,000
<u>Terni Steel Works</u>	2,000	2,000	3,000	3,000	4,000	4,000
<u>Terni Cast Iron Foundry</u>	400	400	400	400	400	400
<u>Cement Mills</u>						
<u>Colle Ferro</u>	0	0	1,000	1,500	2,000	2,500
<u>Spoleto</u>	1,000	1,500	2,000	2,000	2,000	2,000
<u>Civitavecchia</u>	2,000	2,000	2,000	2,000	2,000	2,000
<u>Bosco Terni</u>	500	500	500	500	500	500
<u>Paper Mills</u>						

<u>Terni - Papierno</u> <u>Carbide Works</u>	4,000	4,000	4,000	8,000	8,000	8,000
<u>Terni Nera Montoro</u> <u>Ammonia Works</u>	6,500	6,500	6,500	6,500	6,500	6,500
<u>Ariane Caustic Soda</u> <u>and Chlorine Works</u> (Rome & Rosignano)	0	250	250	500	500	500
<u>Solvay Soda Works</u>	0	0	1,200	1,200	1,200	1,200
<u>Cisa Viscosa Works</u> <u>at Rome and Rieti</u>	3,000	3,000	3,000	3,000	3,000	3,000
<u>Cisa Viscosa Works</u> <u>at Colle Stette</u>	2,000	2,000	3,000	3,000	4,000	4,000
<u>Terni Steel Works</u>	400	400	400	400	400	400
<u>Terni Cast Iron</u> <u>Foundry</u>	0	0	1,000	1,500	2,000	2,500
<u>Cement Mills</u> <u>Colle Ferro</u>	1,000	1,500	2,000	2,000	2,000	2,000
<u>Spoleto</u>	2,000	2,000	2,000	2,000	2,000	2,000
<u>Civitavecchia</u>	500	500	500	500	500	500
<u>Esoco Terni</u>	1,000	2,000	3,000	3,000	3,000	3,000
<u>Paper Mills</u> <u>Isola di Liri</u>	800	800	800	800	800	800
<u>Cenrano</u>	700	700	700	700	700	700
<u>Roma</u>	500	500	500	500	500	500
<u>Tivoli</u>						

127

= 21 =

TABLE "H" (Contd.)

	Sept. KW	Oct. KW	Nov. KW	Dec. KW	Jan. KW	Feb. KW
<u>Mining</u>	600	800	1,000	1,200	1,200	1,200
<u>Flour Mills</u>	4,000	4,000	4,000	4,000	4,000	4,000
<u>Military</u>	4,000	8,000	12,000	15,000	15,000	15,000
<u>Rome:</u>						
<u>Essential)</u>	13,000	13,000	13,000	13,000	13,000	13,000
<u>Civilian)</u>	10,000	15,000	20,000	20,000	20,000	20,000
<u>Civilian</u>	--	--	5,000	15,000	15,000	15,000
<u>Railways</u>	--	--	--	--	--	--
<u>Food, excluding</u>	6,900	6,900	6,900	6,900	6,900	6,900
<u>Flour Mills</u>	6,000	6,000	6,000	6,000	6,000	6,000
<u>Public Institutions</u>	3,600	3,600	3,600	3,600	3,600	3,600
<u>Agriculture</u>	200	200	200	200	200	200
<u>Clothing</u>	500	500	500	500	500	500
<u>Printing</u>	650	650	650	650	650	650
<u>Hemp and Jute</u>	1,000	1,000	1,000	1,000	1,000	1,000
<u>Ceramics and Glass</u>	3,000	3,000	3,000	3,000	3,000	3,000
<u>Mechanical</u>	4,100	4,100	4,100	4,100	4,100	4,100
<u>Lumber</u>						
<u>Total (Additional)</u>						

120

Total (Additional)

Item	13,000	13,000	13,000	13,000	13,000	13,000
<u>Essential</u>	13,000	13,000	13,000	13,000	13,000	13,000
<u>Civilian</u>	10,000	15,000	20,000	20,000	20,000	20,000
<u>Railways</u>	--	--	5,000	15,000	15,000	15,000
<u>Food, excluding flour mills</u>	6,900	6,900	6,900	6,900	6,900	6,900
<u>Public Institutions</u>	6,000	6,000	6,000	6,000	6,000	6,000
<u>Agriculture</u>	3,600	3,600	3,600	3,600	3,600	3,600
<u>Clothing</u>	200	200	200	200	200	200
<u>Printing</u>	500	500	500	500	500	500
<u>Hemp and Jute</u>	650	650	650	650	650	650
<u>Ceramics and Glass</u>	1,000	1,000	1,000	1,000	1,000	1,000
<u>Mechanical</u>	3,000	3,000	3,000	3,000	3,000	3,000
<u>Lumber</u>	4,100	4,100	4,100	4,100	4,100	4,100
<u>Total additional needed</u>	79,950	90,900	109,800	127,750	129,250	129,750
<u>Present Load</u>	57,000	57,000	57,000	57,000	57,000	57,000
<u>Total Demand</u>	136,950	147,900	166,800	184,750	186,250	186,750
<u>Generating Capacity</u>	58,000	76,000	88,000	114,000	155,000	154,000
<u>DEFICIT</u>	78,950	71,900	78,800	70,750	31,250	32,750

$$= 22 =$$

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

Below is given:-

- (a) Extract from minutes of Electrical Reconstruction Committee Italy.
- (b) Copy of letter from Minister of Public Works.

(a) Resolution.

Having given due consideration to the present electricity supply position, affecting both military and essential civilian needs, and the possibility of early rehabilitation of electrical plant and equipment damaged by war action, this Committee recommends that steps be taken for the early importation of 60,000 KW of electrical generating plants for use in this Theater of Operations. In view of the urgency of the matter it is recommended that floating Power plants, if available, should be provided.

Il Ministro
dei Lavori Pubblici

7 Aug. 1944

N° 1099

Lt. Col. L.A. JENNY
Director, Public Works and Utilities
Sub-Commission A.C.C.

SUBJECT: Payment for Electrical plant.

In view of the very serious shortage of electric power plants in Italy, and the need for importing such plants so as to serve military as well as highly essential civilian needs, the Ministry of Public Works has stated that, if such plants can be imported without delay, the Italian Government will assume the responsibility for:

- a) The payment of rental for these plants during military operations, as well as the cost of operation, and

Having given due consideration to the supply position, affecting both military and essential civilian needs, and the possibility of early rehabilitation of electrical plant and equipment damaged by war action, this Committee recommends that steps be taken for the early importation of 60,000 KW of electrical generating plants for use in this Theater of Operations. In view of the urgency of the matter it is recommended that floating Power plants, if available, should be provided.

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Director, Public Works and Utilities
Sub-Commission A.C.C.

SUBJECT: Payment for Electrical Plant.

In view of the very serious shortage of electric power plants in Italy, and the need for importing such plants so as to serve military as well as highly essential civilian needs, the Ministry of Public Works has stated that, if such plants can be imported without delay, the Italian Government will assume the responsibility for:

- a) The payment of rental for these plants during military operations, as well as the cost of **125** operation, and
- b) The ultimate acquisition of these plants after they are no longer needed by the Allied Armed Forces.

The Italian Government asks that the payment for the ultimate acquisition of such plants be arranged on a long term basis.

THE MINISTER

Signed: Mancini

= 23 =

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 354

SOUTHERN ITALY

Report on the availability of electrical energy in Southern Italy progressively for the six months ending Feb. 28th 1945.

Also estimated requirements of electrical energy for Military, essential Civilian and factory rehabilitation in Southern Italy for the same period.

Prepared by the Electrical Division
Public Works and Utilities Sub-Commission
ALLIED CONTROL COMMISSION
26th August 1944

L.A. Jenni
L.A. JENNI,
Lt. Colonel, C.E.,
Director.

Italy for the same period.

Prepared by the Electrical Division
Public Works and Utilities Sub-Commission
ALLIED CONTROL COMMISSION
26th August 1944

L.A. Jenny

L.A. JENNY,
Lt. Colonel, C.E.,
Director.

124

W.M. Lapper

W.M. LAPPER,
Lt. Colonel
Chief Electrical Divn.

HEADQUARTERS

ALLIED CONTROL COMMISSION

Public Works and Utilities Sub-Commission

APO 394

Report on the availability of electric energy in Southern Italy and reduction in generating capacity due to the destruction of plants by the enemy.

(1) The enemy retreat through Southern Italy was much more rapid than Central Italy. In the first case the conditions were almost always fluid whereas in Central Italy a certain stationary period existed. It is for this reason together with the enemy's greatly improved organization in demolition squads that the destruction in Southern Italy is considerably less than Central Italy.

(2) In considering the effective capacity of the generating facilities in Southern Italy the following important points should be noted:-

- (a) 170,000 KW of the generating capacity is situated in the extreme South. It is known as the Sila Group of Hydro Electric Stations located in Calabria.
- (b) As there are only two high voltage transmission lines leading north from the Sila Group, each of 45,000 KW capacity the effective output from the group, apart from Calabria which is fed on a lower voltage system from the same group, is limited to the capacity of these lines and also to the capacity of the transformers at the Sila Group.
- (c) Electricity rationing schemes initiated by A.C.C. and now being handed over to the Italian Government keep the demand within the effective output of the generating plant. This rationing arrangement will have to be maintained until the electrical facilities in Central Italy have been restored and interconnection resumed.
- (d) The greatest care is taken to see that the consumption of electricity in the Southern Italy area does not exceed the allowable water flow from the Reservoirs. The A.C.C. Southern Italy Electrical Engineer regulates this either by varying the consumption or to a certain extent by the use of the Government Steam plant.

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123

TABLE "A"

Summary of Electrical plant and requirements

- (1) Total effective output capacity of generating plant in Southern Italy 142,600 KW
- (2) It is anticipated that the above output capacity will be increased during the winter months due to rainfall. (This does not include Sila group which is limited by Transmission Line capacity). 10,000 KW
- (3) The allocation of Electric power is made by the Allied force Local Resources (Italian) Board Electrical Committee to the various districts. The allotment for September being as follows.

TABLE "A"

Districts	Allotment in Kilowatts
<u>District 1</u> UNES	1,500
<u>District 2</u> Apulia Lucania	42,000
<u>District 3</u> Campaia	23,100
<u>EBS</u> Naples Santa Maria	33,000
<u>ACC</u> Calabria	11,000

- (3) The allocation of Electric power is made by the Allied force local Resources (Italian) Board Electrical Committee to the various districts. The allotment for September being as follows.

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<u>District 3</u> Campania	23,100
<u>PBS</u> Naples Santa Maria	33,000
<u>ACC</u> Calabria	11,000
Railways (DCMRS)	10,000
TOTAL Demand	120,600

122

It is expected that this demand will increase during the winter months. Table "B" shows the effective output capacity to meet the demand during the months of Sept. 1944 to Feb. 1945 inclusive. The Italian Government will arrange to ration supplies to keep within this capacity.

TABLE "B"

Showing the output capacity of the Generating Stations operating in connection with the Grid System in Southern Italy at 26th Aug. 1944.

Name of Station (1)	Location of Station (2)	Output Capacity at 26th Aug. 44. KW (3)
Sila Group (H)	Calabria	105,000
Tuscolano (H)	Salerno	4,200
Tanagro (H)	Salerno	2,200
Matese I (H)	Benevento	5,200
Capuano (S)	Naples	20,000
Volturno (H)	Naples	6,000
TOTAL Output Capacity		142,600

Matese I. Set is at present out of operation due to breakdown of Alternator repair will be completed at end of Sept.

Sila Group. The total Capacity of the Sila Group is 170,000 KW, the effective output however is less due to the following causes:

(1)	(2)	(3)
Sila Group (H)	Calabria	105,000
Tusciense (H)	Salerno	4,200
Tanagro (H)	Salerno	2,200
Matase I (H)	Benevento	5,200
Cepuano (S)	Naples	20,000
Volturno (D)	Naples	6,000
TOTAL Output Capacity		142,600

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Sila Group. The total Capacity of the Sila Group is 170,000 KW, the effective output however is less due to the following causes.

- (a) Plant is run to suit Reservoir capacity
- (b) Transmission Line Limitation
- (c) Transformer Limitation.

TABLE " C "

Showing the output capacity of the Generating Plant connected to the Grid System which is now under repair and the anticipated date of completion.

Name of Station (1)	Location of Station (2)	Output Capacity KW (3)	Anticipated date of Completion (4)
Cepuano Calore Aventino	Naples Avellino Chieti	10,000 5,000 4,200	Nov. Nov. Jan.
TOTAL Output Capacity		19,200	

TABLE " D "

Showing the output capacity of the generating plant which is being moved to assist in the rehabilitation programme.

Name of Station receiving plant (1)	Location of Station (2)	Output Capacity KW (3)	Anticipated date of Completion (4)
Matrese II (set from Alto Belice Sicily 3,000 KW)	Benevento	(see Table D page 5. Central Italy Report)	
Lete	Campobasso	5,200	Jan.

(1)	(2)	(3)	(4)
Capuano Celero Aventino	Naples Avellino Chieti	10,000 5,000 4,200	Nov. Nov. Jan.
TOTAL Output Capacity		19,200	

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Matese II (set from Alto Belice Sicily 3,000 KW)	Benevento	(see Table D page 5. Central Italy Report)	
Lete (set from Matese I 5,200 KW)	Campobasso	5,200	Jan.
TOTAL Output Capacity		5,200	

120

TABLE "E"

Showing the output Capacity at present, from repaired plants, by transfer of plants and the additional output to be expected during the winter months due to rainfall.

	Sept. KW	Oct. KW	Nov. FW	Dec. KW	Jan. KW	Feb. KW
Present output Capacity	142,600	142,600	142,600	142,600	142,600	142,600
Output capacity from repaired plants	--	--	15,000	15,000	19,200	19,200
Output capacity from transfer of plants	--	--	--	--	5,200	5,200
Output capacity from increase in water	--	3,000	6,000	8,000	10,000	8,000
TOTAL	142,600	145,600	163,600	165,600	177,000	175,000
Est minimum outage for breakdown and Repairs 10%	14,260	14,560	16,360	16,560	17,700	17,500
Effective output capacity	128,340	131,040	147,240	149,040	159,300	157,500

111

Output capacity from repaired plants	---	---	15,000	15,000	19,200	19,200
Output capacity from transfer of plants	---	---	---	---	5,200	5,200
Output capacity from increase in water	---	3,000	6,000	8,000	10,000	8,000
TOTAL	142,600	145,600	153,600	165,600	177,000	175,000
Est minimum outage for breakdown and Repairs 10%	14,260	14,550	16,360	16,560	17,700	17,500
Effective output capacity	128,340	131,040	147,240	149,040	159,300	157,500
SAY	128,000	131,000	147,000	149,000	159,000	158,000

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HEADQUARTERS ALLIED COMMISSION

APC 394

Public Works and Utilities Sub-Commission

SUMMARY OF ACTIVITIES DURING OCTOBER 1944.

14 Nov. 1944.

1. General Observations.

The opening paragraph of the September report announced that it would be found to be much shorter than its predecessors. In accordance with instructions since received, endeavours have been made to present the substance of the following report in an even more compressed form, and it is hoped that the deliberate condensation will be borne in mind.

2. Absence on duty of the Director and the Chief of the Electrical Division.

The absence of Lt.Col. Jenny (Director) and Lt.Col. Iapper (Chief, Electrical Division) continued throughout October. These Officers had departed for America on 22 Sept., upon a mission which was expected to occupy several weeks. Lt.Col. Jenny returned on 1st Nov. Throughout the month, therefore, there continued to be only two Lt.Colonels at Headquarters instead of four, and their responsibilities were correspondingly heavy.

3. Special Conferences.

Officers of this Sub-Commission attended, in October, a series of conferences with representatives of the Foreign Economic Administration and of the Ministry of Production (London), in connection with the intention to place Dollar-Sterling credits. It is unnecessary to go further into the matter in this Report, except to say that the Public Works and Utilities Sub-Commission is directly interested to an extent which is probably represented by about 60% of the estimated value of the proposed credits.

4. Confidential Maps for A.A.I.

At the request of A.A.I., this Sub-Commission has recently prepared and furnished maps, showing important confidential information which cannot, however, be defined

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2. Absence on duty of the Director and the Chief of the Electrical Division.

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4. Confidential Maps for A.A.I.

At the request of A.A.I., this Sub-Commission has recently prepared and furnished maps, showing important confidential information which cannot, however, be defined herein. (see also para. 16 (e)).

118

5. Eruption of Vesuvius (March 1944).

In para. 12 of the September Report, reference was made to the dilatory procedure of the Genie Civile in preparing urgent measures for preventing landslides from the new cone of Vesuvius, and it was related that the Acting Director (Lt. Col. G.E. Rhodes, R.E.) and the Regional Engineer, Southern Region Col. I.J. Hensley, C.E.) had devoted a day to a personal site reconnaissance of the project. As a result of their investigations

it was definitely concluded that no preventive measures could be effected this winter, that the period of extreme urgency had therefore passed, and that, in any case, the plans and estimate which had been put forward by the Genio Civile were considered to be technically unsound. Moreover, the scheme which the Genio Civile had prepared was probably extravagant and likely to be wasteful of money, materials and labour, an expenditure of several hundred million lire having, in fact, been contemplated. However, as such matters, requiring no critical materials, will be left to the Italians to decide, this Sub-Commission will only take an advisory interest in the future.

6. Defascism.

Defascistization of the staff of the Genio Civile, and of certain agencies partially dependent upon it, was referred to in para. 3 of the September report. During October, communications received from the Ministry of Public Works, regarding progress of operation, continued to be satisfactory. Under instructions recently issued, special efforts are to be made in November to ensure that the Ministry will deal with cases down to and including Grade IV.

7. Mine Clearance.

Reference to this subject was made in para. 5 (r), (c) and (d) of the August report and in para. (e) of the Lazio-Umbria section of the September report.

Arrangements that other departments of the Commission have already made for mine clearing need not be gone into here, but the extent of the task is well exemplified by the fact that in one comune alone (in Abruzzi-Marche Region) the estimated number of mines to be lifted is no less than 150,000.

The urgency and importance of the vast general problem of mine clearance cannot be over-emphasised and it is obvious that whatever measures be adopted for contending with it ought to be no less than commensurate with its own magnitude. It is hoped that the work of mine clearing will be prosecuted with the utmost vigour. In the meantime, lives are being lost and important works are being seriously delayed.

8. Flooded Railway Tunnel in Rome.

In the middle of October the Ministry of Communications (Italian Government) appealed for assistance in connection with a flooded portion of the partially constructed tunnel of the

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8. Flooded Railway Tunnel in Rome.

In the middle of October the Ministry of Communications (Italian Government) appealed for assistance in connection with a flooded portion of the partially constructed tunnel of the "Ferrovie Metropolitane di Roma". The Ministry took the view that the accumulated water might menace public health by becoming a breeding ground for the larvae of anopheles mosquitoes, thus possibly spreading malaria in the City. On the strength of this contention, the Ministry hoped that the A.C. would provide powerful temporary pumping plant for removing the large quantity of water.

The flooded tunnel was inspected by Officers of this Sub-Commission who found that, although the quantity of flood water was great, and very extensive in surface area, it lay

almost wholly in complete darkness. There were, admittedly, lesser pools of water exposed to daylight in the open excavations at each end of the flooded tunnel, but these presented no serious problem. After consulting Officers of the Malaria Control Division of the Public Health Sub-Commission, and obtaining from them confirmation of its own views, this Sub-Commission informed the Ministry of Communications that there was no need to pump out the water and that it would be sufficient to treat the exposed pools with Paris Green at weekly intervals during the malarial season.

9. Funds for Housing and Electrical Rehabilitation.

An important conference with the Minister of Public Works and his Director General was held on 26th October. Primarily in connection with the financing of housing projects and electrical rehabilitation it had the essential purpose of hastening the preparation and promulgation of necessary Decrees. Notes on the findings of the conference were promptly sent to the Minister for his comments, and his reply contained an assurance that the proposed Decree relating to the construction and repair of dwellings would be further examined by the Council of Ministers at its meeting on 7th November.

Technical aspects of housing and electrical rehabilitation are dealt with elsewhere in this Report.

10. Report on Road conditions.

It was announced in para. 7 of the September Report that this Sub-Commission had established a small "Road Reports Bureau" with the object of collecting information on road conditions from officers returning from tours. It can now be reported that the Bureau is functioning well and promises to be of great value to travellers, especially during the coming winter. It has, in fact, already been of good service, for during the latter half of October, when many roads were closed on account of flooded conditions, its fund of information was much in demand. Through the medium of dozens of telephonic inquiries each day the Bureau was able to furnish officers with advice on projected journeys in all parts of liberated Italy. It must be understood, however, that because the data are obtainable only from officers returning to this Headquarters, or from some casual sources, it may not always be possible to supply comprehensive information about every route.

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117

11. Public Utility Rates for Water, Electricity and Gas.

The provisional augmentation of Public Utility rates is a subject that has claimed such attention during the past ten months and has, in fact, been a heavy burden. So much has this work increased that, a month or so ago, it became evidently necessary to transfer to the Italian Government as much as possible of the labour and responsibility involved. Accordingly, at the instigation of this Sub-Commission, the Economic Section convened, during the month, two conferences, at which the Finance and Legal Sub-Commissions, and other interested branches,

were represented. In addition there have been private consultations and much inter-departmental correspondence. The purpose of all this activity was to frame future policy and to approve in a satisfactory form the draft Decree which the Italian Ministry of Public Works had proposed for regulating the matter. It is confidently expected that the final draft of the Decree will shortly be approved, and thereafter the Italian Government will be pressed to promulgate it with the utmost speed.

As the work is continually growing, it will readily be appreciated that the extensive financial investigation and complex calculations entailed in establishing Public Utility rates could not be permanently undertaken by the limited engineering staff of this Sub-Commission. Moreover, in Italian Government territory, excepting the Allied Commission's responsibility for maintaining an overall surveillance of prices, the adjustment of Public Utility rates is properly the concern of the Government.

12. Electricity Situation in Rome.

The inconveniences experienced in Rome on account of the general shortage of electric power, accentuated recently by unfortunate breakdowns in the local thermal generating stations, are not difficult to appreciate. Nevertheless, this Sub-Commission has not felt satisfied that the distribution of the limited power available has always been planned to the best advantage, although it must be conceded that the problem of electricity rationing in the Capital has never been easy.

Feeling dissatisfied with the situation, and firmly believing it to be capable of appreciable improvement, the Acting Director (Lt.Col. G.S. Rhodes, R.E.) conferred with the Acting Chief of Staff of the Economic Section and also addressed to him two letters on this subject, dated 21st and 30th October. The epitome of the Acting Director's contentions was that the inconveniences recently experienced, such as the prohibition of the use of lifts and the frequent interruptions of the lighting service, might have been obviated by a more judicious allocation of the available power. The rationing of electricity in Rome was, however, in the hands of the Electricity Control Board of Rome Allied Area Command and not in the hands of this Sub-Commission. The Acting Director expressed the opinion that the Allied Commission itself ought to be empowered to take a hand in the matter, and he emphasised that this Sub-Commission had in no wise been responsible for the inconveniences before mentioned, nor had it been in a position to endeavour to mitigate them.

In this connection it may be noted that the AFHQ letter

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In this connection it may be noted that the AFHQ letter of 18 October 44, entitled "Electricity Control", after declaring that the responsibility for local electricity control will rest with the Military Commander in each area, goes on to state that "close co-ordination with the local Allied Military Government - Allied Control Commission representative will be effected."

The Acting Director also had a long interview with the Chairman (Major Hughes) of the Electricity Control Board, R.A.A.G., and the afterwards confirmed his views in a letter to the Chairman, dated 30th October. He learned that the A.C. had originally been directly represented on the Board, but that its

representative, Lt. Col. Andrews, had left before some time had and had not been replaced. Arrangements were thereupon made for his place to be taken by Capt. D.W. Laughlin, an Officer of the Electrical Division in the Headquarters of this Sub-Commission. Very properly, therefore, the A.C. is now directly represented on the Board by a well-informed officer of the Department which carries the bulk of responsibility for power production. (Vide paras. 16(a) and 22).

13. Special Report on the Electric Power Situation.

A comprehensive report, entitled "The Electric Power Situation in Liberated Italy", setting out the whole electrical position as on 31st Oct., was furnished to the Acting Chief Commissioner for Presentation to the Advisory Council at its meeting on 3rd November.

14. Procedure for Approval of Projects.

As the program of general reconstruction and rehabilitation in all its phases has developed, it has been necessary from time to time to alter, and improve upon, the procedure laid down for the submission, examination and approval of projects. The culmination of these changes, all of which had the purpose of reducing delays to a minimum, is represented by the procedure which is now set out in Appendix (A) of this Report. Although quite recently evolved, it has already proved remarkably satisfactory.

15. Highways, Bridges and Public Works.

- (a) New contracts entered into in October:-
- Military highways and bridges No. 53
 - Miscellaneous work, including buildings, works in ports, and works on provincial roads and bridges No. 41

Expenditure and commitments on Military Highways and Bridges - originally met from a special fund of 600 million lire which was set up last February - have now reached a total of nearly 877 million lire, the original fund having already been exceeded in September. The total of expenditure and commitments on miscellaneous work (defined above) since January last has reached approximately 446 million lire. The total of expenditure and commitments on both classes of work (i.e.

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The rate of expenditure on these services still continues to increase.

(b) Roads. (General)

In the September report, reference was made to difficulties that were expected to arise on certain main routes in which demolished bridges had been replaced by the Armies, either by earth fills or by inadequate wooden structures. The anticipated

trouble was realised during October in consequence of the extensive rains. Road blockades, caused by the washing away of earth fills or temporary bridge structures, occurred at various times on Routes 1, 2, 3, 6 and 7, but by the execution of considerable emergency work, carried out both by contractors and by Military units, most of the interruptions were reduced to short periods. Route 1 still remains blocked in three places, but emergency repairs are well in hand and will be continued with all possible speed. Emergency repair crews are being organised on every main route to supplement the efforts of regular contractors. It is intended that these crews shall be as mobile as the transport situation will allow, and that they shall function as "floating gangs", available wherever the need may be most critical.

Permanent reconstruction of bridges is proceeding rapidly, although occasionally it is retarded by insufficient supplies of materials, particularly cement.

On route 6, near Cerrano, by means of day and night work, a large concrete arch bridge was hastened to completion on 20th October, in time to carry the heavy truck traffic occasioned by the "wash-out" of the main railway line near Cassino. All railway freight is being unloaded at Cassino and "ferried" by truck to Cerrano, where it is re-loaded on rail. This movement would have been severely hampered had it been necessary to use the one-way Bailey bridge that was in temporary service until completion of the permanent structure.

No serious difficulties are being encountered in the maintenance of road surfaces, which is progressing well and is limited only by bitumen supplies and restricted transport.

(c) Housing.

New schemes continued to flow in from the Italian Ministry of Public Works during October, all of them relating to projects in Lazio-Umbria Region. Up to the end of the month the schemes approved for execution can be summarised as follows:-

1. Repairs	850 apartments	L. 31,484,000
2. New constructions	494	L. 116,115,000
	1,344	L. 147,599,000

These projects relate to sixteen Communes situated variously in the Provinces of Littoria, Frosinone and Rome. They do not, of course, include Videspina and extensive repairs to privately owned dwellings, which repairs are observed to be proceeding at a promising pace and are being encouraged and

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These projects relate to sixteen Communes situated variously in the Provinces of Littoria, Frosinone and Rome. They do not, of course, include widespread and extensive repairs to privately owned dwellings, which repairs are observed to be proceeding at a promising pace and are being encouraged and aided in every possible way by this Sub-Commission.

Current estimates of cost for public housing schemes still seem to be unreasonably high (vide para. 17 (d) of the September report) but all efforts to secure better prices have as yet been of no avail.

Reference to the financing of housing projects is made also in para. 9 of this Report.

16. Electrical Division.(a) APHQ Memorandum No. 43.

Reference to the above named Memorandum has already been made in para. 20 (b) of the September report, wherein the heavy additional responsibilities assigned to the A.C. by the provisions of that instruction were defined in detail. Even a cursory consideration of those responsibilities will have made it apparent that the Allied Commission - and therefore this Sub-Commission - has been doing the "Main Spring" of electrical reconstruction activities in Italy. (The Sub-Commission's consequent need of additional specialist personnel is dealt with in para. 22 hereof).

(b) Conference with Electric Operating Companies.

A conference has been arranged with engineering representatives of the principal electric operating companies for the purpose of establishing a program relative to all generating plant and transmission systems that are capable of being restored to operation by 31st December 1944. This program, already prepared in draft, will extend by a further period of nine months the existing six months plan developed in detail by the Sub-Commission. As yet, however, there is not sufficient information available for a reliable statement to be made on the generating capacity expected to be made available under the scheme.

(c) Information for F.E.A. and Foreign Office.

Representatives of the Foreign Economic Administration, and the Ministry of Production (London), conferred with officers of this Sub-Commission, and were furnished with requisite information concerning the electric power situation in Italy, particularly Central Italy.

(4) Electrical Rehabilitation Projects and Funds.

The Sub-Commission has now received the first estimates of cost for rehabilitation projects relating to war damage of electrical utilities. They came from the Società Meridionale di Elettricità, which supplies power to Southern Italy. The estimates have been approved by the Sub-Commission and have been forwarded to the Italian Ministry of Public Works for action in accordance with the arrangements made with that Ministry. Copies of the estimates have been supplied to the Finance Sub-Commission of the A.C. It is expected that similar estimates will be received in due course from all the large

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115

(e) Electrical Maps.

Elsewhere in this Report, mention has been made of confidential maps which were recently prepared for, and furnished to, A.A.I. At the request of the Chief Engineer, AFHQ, the Electrical Division has also prepared and supplied a large map of scale 1 : 200,000, showing the locations of all electric generating plants of 1,000 KW. capacity or larger, over Italian territory extending from a latitude a little north of Rome up to the Swiss frontier. A copy of this map is available for

inspection by personnel of other Sub-Commissions interested in the information which is affords.

(f) Representation on other Bodies.

During the month, officers of this Sub-Commission took part in meetings and conferences of the Electricity Control Board of R.A.A.C., and the Electrical Committee of the Allied Forces Local (Italian) Resources Board.

(g) General.

In order to secure the most efficient operation of existing power stations and transmission lines, and to co-ordinate the activities of the several undertakings, a central load dispatcher has been established at Villavalle. It was installed by the Terni Company at the instigation of this Sub-Commission. The dispatcher controls the output of the generators in the Terni Area, and is in direct telephonic communication with this Sub-Commission. Similar arrangements have also been made with a load dispatcher in the Rome Area. Every kilowatt of generating capacity connected to the grid system in Central Italy is, therefore, now under control by this Sub-Commission, which is thereby enabled to effect an impartial and equitable distribution of the total available output. This centralization of control at Headquarters A.C. makes it possible to adjust the loading of the Rome thermal generating plants in accordance with available fuel supplies, and to ensure the fullest use of power available from hydro-electric stations.

The fuel situation at the Rome thermal stations has been very critical during the month. Operational movements have caused delays in fuel shipments; and land transportation of coal, from Naples and Ribolla to Rome, has been seriously impeded both by a train wreck and by highway obstructions due to floods. Consequently, the ten-day reserve of coal which was available at the beginning of the month has dwindled to the amount of one day's needs and this, of course, has necessitated restriction in the operation of the steam plants in order that sufficient fuel may be kept in hand to maintain the service of essential Military needs in the event of other plant failures. All agencies concerned with the procuring and handling of coal are actively concentrating their efforts to improve the situation. Because the epidemic of breakdowns in September did not

continue in October, the firm generating capacity of the Rome steam plants rose from 10,000 KW on 1 October to 20,000 KW by 31 October. However, the actual energy output of the plants did not increase appreciably, because of the lack of coal. The amount of hydro-generated energy supplied to Rome increased steadily throughout the month, with the result that an increasing number of civilian circuits in Rome received energy. The total number of kilowatt-hours generated by the Rome Steam plants

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Tramway and "filobus" services in the Rome Area have been restricted with effect from 24th October. Their new schedules provide for discontinuance of the services after 17.30 hours, instead of 16.30 hours as previously, thereby releasing about 4,000 KW. for feeding into circuits of higher priority.

During the month, the Sub-Commission has dealt with numerous important requests, submitted by other Sub-Commissions, for the allocation of electric power for industrial purposes.

The largest was for 14,000 KW., with a proposed consumption of 10 million KWH. per month, for the fertilizer works at Crotone, Calabria, which was planned to resume production in December. Unfortunately, it will be necessary to defer this allocation owing to damage inflicted by lightning on one of the plants of the Sila development near Crotone. The following list is a selection from the many other applications which were handled:

Calce & Ciment di Segni - Colledara	- 350 KW.
five brick factories - Lazio-Umbria Region	- 585 KW.
Scalfati - Nocera trainway - Naples Area	- 500 KW.
Galatina Cement Works - near Tivoli	- 1500 KW.
Nieve Sinalunga brick works - near Siena	- 150 KW.
Cantiere Meridionale Paper plant - at Isola Liri	- 200 KW.
Ilva Steel works: Steel Purposes - Bagnoli	- 2500 KVA.
Talcum powder plant - Livorno	- 80 KW.
Aniene chemical plant (Caustic Soda) - Roma	- 350 KW.
S.A.I.P.A. Alum. plant, Castellina	- 40 KW.
S.A.T.V. Olive oil pressing plant Villa Sant'Angelo	- 30 KW.
Mantecchini - Preteina - (Bone phosphates) Roma	- 30 KW.

Officers of this Sub-Commission continued their tours of inspection and supervision of power plants, sub-stations and transmission lines, under repair. These visits have proved valuable for verifying that work was proceeding expeditiously and that materials essential to repairs were being made available and promptly transported. The tours included inspections of work on power plants at Coprano, Nova Monferrato, Bardonecchia, Terni, Varin, Castellana Grotte, Marcellinara and Castelnuovo, and reconnaissances in connection with contemplated repairs at Pescara and Marino.

The following pertinent excerpts are quoted from the bi-monthly report on the electrical situation in Central Italy:-

the rationing of electric

Sanfati - Nocera railway - Naples Area	- 500 KW.
Cudonia Cement Works - near Trivoli	- 1500 KW.
Piave Sinalunga brick works - near Siena	- 150 KW.
Cantiere Meridionale Paper plant - at Isola Liri -	- 200 KW.
Ilva Steel works: Steel Furnaces - Bagnoli	- 2500 KWA.
Talcom powder plant - Livorno	- 80 KW.
Aniene chemical plant (Caustic Soda) - Rome	- 350 KW.
S.A.I.P.A. Alum plant, Gestellina	- 40 KW.
S.A.T.V. Olive oil pressing plant Villa Sant'Angelo	- 30 KW.
Montecatini - Prestina - (Bone phosphates) Rome	- 30 KW.

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The following pertinent excerpts are quoted from the bi-monthly report on the electrical situation in Central Italy:-

- (1) "A new program for the rationing of electric power in Rome, prepared by the Rome Allied Area Command, is expected to start on 1st November. The program calls for more electricity to be made available for civilian use."

- (ii) "The Rome steam plants have been operating more reliably recently under the joint operation set up by this Sub-Commission. More fuel is being received at these plants, although up to now the fuel supply has limited the output of the S.P.E. station. A new difficulty has arisen at the A.C.B.A. plant, in that the high stage of the Tiber has caused debris to be carried into the condensers at the A.C.B.A. plant, and necessitated frequent outages for cleaning."
- (iii) "One unit at Capraia and one at Parfa are running short circuited at the moment in order to dry the windings prior to being connected to the system. Both the Capraia units, as well as the one at Parfa, are expected to be on the line by 7 November."
- (iv) "The frequency of the Terni 50-cycle system has been very low during the last two weeks. A satisfactory solution to this problem has not yet been reached. However, it is being actively studied co-operatively by A.A.I., No. 1 District, and the Allied Commission. This condition affects the power supply to Rome and other northern points."

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17. Water Supplies.

The repair of water supplies that have suffered war damage continues steadily, and a number of new schemes have been approved during the month. There is evidence of a tendency on the part of the civil authorities to postpone the execution of more extensive work that would actually be sufficient to meet essential needs and, therefore, it is sometimes necessary to advise projects in order to reduce to a minimum both the financial expenditure and the consumption of requisitioned materials.

The water supply of Rome still receives particular technical attention and there is no doubt that it has lately shown improvement. In addition to the increased quantity of water supplied to the city it is confidently expected that it will shortly be possible to effect more frequent rationing to those high level districts that are as yet without a continuous service.

Among the more important schemes authorized during the month is some repair to the severely damaged water distribution system of Terni. Approval has been given only to so much of this work as can be put in hand at once. The remainder, which is by far the larger part, cannot be executed until later, when debris will have been cleared and the new town plan prepared.

18. Recreation.

Repair of damaged sewerage systems also continued.

Several schemes have been approved during the month but they are not large and there is some worry of particular mention.

19. Fortifications.

The importance and extent of the Sub-Commission's responsibilities in connection with rearmament lands and other varieties of "fortifications" increase continually. Nevertheless, this work is as yet but a small fraction of the ultimate task which will be presented when the vast and numerous reclaimed areas of the northern regions demand attention. In the "Fortified Marshes" work is well in hand for restoring gravitational drainage, and a scheme has just been approved for affording further protection to Route 7 against flooding in that locality. Endeavours are being pursued in collaboration with the Transportation Sub-Commissioner to locate some of the electrical machinery which was removed by the Germans from pumping stations of the Fortified Marshes area.

During the month, three schemes have been approved for restoration of "fortified" works in Toscana Region and one such scheme in Abruzzi-Marche Region. Measures are at present under consideration for alleviating flooding of highways near Cortona and Tarnobrzeg.

The potentialities of deliberate flooding in the Po valley, principally by the waters of the Rivers Po and Adige, present a subject for constant study.

By arrangement with H.Q. S.A.I., this Sub-Commission regularly receives secret intelligence, supported by plans and aerial photographs, regarding the condition of the low-lying areas concerned.

18. CONCRETE.

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Several schemes have been approved during the month but they are not large and there is some worthy of particular mention.

19. Bonifiche.

The importance and extent of the Sub-Commission's responsibilities in connection with reclaimed lands and other varieties of 'bonifiche' increase continually. Nevertheless, this work is as yet but a small fraction of the ultimate task which will be presented when the vast and numerous reclaimed areas of the northern regions come into attention. In the 'Portine Marshes', work is well in hand for restoring preventative drainage, and a scheme has just been approved for affording further protection to Route 7 against flooding in that locality. Endeavours are being pursued in collaboration with the Transportation Sub-Commission to locate some of the electrical machinery which was removed by the Germans from pumping stations of the Pontine Marshes area.

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20. Gas.

113

There is little to report regarding the production and distribution of town gas. The town gas supply maintains its restricted services and the gas supplies of Naples, Bari, Taranto and other southern towns continue in operation without any incident or difficulty worthy of particular comment. Gas production in Sicily, however, has been suspended owing to lack of coal.

The possibility of re-commencing operation of the Florence gas works early in the new year is under investigation. The restoration of this service is particularly desired by the Fifth Army in order to minimise transportation of fuel for domestic consumption. The practicability of it is almost wholly dependent upon availability of gas coal, but the prospect of obtaining adequate supplies as soon as there exists a rail transport service to Florence is good, and, therefore, repairs to the gas works are about to be put in hand.

21. Posting of Officers and Quarters

At the request of the H.Q. Commandant, the Sub-Commissioner recently prepared a report on fuel requirements for the central heating and hot water systems of the H.Q. building and the ten hotels which serve as living quarters for Officers and other ranks, or Enlisted Men. Also, at the H.Q. Commandant's request, recommendations have been made regarding necessary repairs to the central heating system of the Headquarters building.

22. Personnel

In para. 16 of the September report, the findings of the Man-power Committee were outlined, and mention was also made of the addition of three American civilian engineers (since increased to four) to the staff of this Sub-Commission. The findings of the aforesaid Committee were only implemented, thus reducing the number of officers at Headquarters to thirteen, eight of whom comprise the permanent basic officer staff (engineering and administrative), whilst the other five are provisionally retained, as agreed, for work on the Electric Power and its connection with the general work of the Electrical Division.

A.F.M.S. Administrative Memorandum No. 43, dated 5 Oct. 44, the essence of which was set out in para. 20 (b) of the September report, has greatly increased the burden of the Electrical Division, and it has come this by taking the Allied Commission - and, therefore, this Sub-Commission - the responsibilities of electric power activities in Italy. On receipt of the Memorandum, the question of providing personnel to shoulder the added duties and responsibilities has immediately to be considered and, after careful review, it was recommended that a total of 47 electrical engineer officers (10 at this Headquarters and 37 in the Regions) would be needed. This figure is inclusive of the present staff. This recommendation was to be considered by the Man-power Committee early in November.

Of the above estimated number of electrical engineer officers, the 10 for Headquarters are all necessary now. Of the ultimate 37 for the Regions, probably only about one third are required at present, but they will need to be supplemented from time to time, as more and more territory becomes liberated, until the ultimate figure of 37 is reached concurrently with the occupation of the whole of Italy. It is expected that considerable difficulty will be met in acquiring this number of experienced officers, with the necessary specialist qualifications, and for this reason alone it is likely to take a considerable time to reach the envisaged eventual strength.

Three of the American civilian engineers have been assigned to the staffs of Regional Engineer leaders, Townsend and Mapp to Southern Region and Mr. Griffith to Anagni-Marche Region. Mr. Solomon was appointed to duties at this Headquarters in connection with heating. By posting these civilian engineers to Regions, it is intended that they shall gain practical experience in the problems and duties of Regional Engineers and their staffs. It is reiterated that every endeavour has been made to meet the individual wishes of these gentlemen and to find them congenial work.

The Sub-Commission was recently required to nominate three of its British officers with a view to their possible employment in another theatre of war. Shortly afterwards a further three names had to be submitted, making a total of six British officers whose services may now be expected to be lost to the Sub-Commission. This is regarded as a somewhat heavy demand upon the already very limited number of experienced British officers in the respective grades, and it will tend to make the work of the Sub-Commission still more onerous for the

reducing the number of officers at Headquarters (engineering and administrative), whilst the permanent basic officer staff (engineering and administrative), for work on the Electric Power other five are provisionally retained, as agreed, for work on the Electrical Division.

2.2.1.1. Administrative Memorandum No. 143, dated 5 Oct. 44, the essence of which was set out in para. 20 (b) of the September report, has greatly increased the burden of the Electrical Division, and it has been this by making the Allied Commission - and, therefore, this Sub-Commission - the "mainstay" of electric power activities in Italy. On receipt of the Memorandum, the question of providing personnel to shoulder the added duties and responsibilities has immediately to be considered and, after careful study, it was recommended that a total of 47 electrical engineer officers (16 at this Headquarters and 37 in the Regions) should be needed. This figure is inclusive of the present staff. This recommendation was to be considered by the "Plan-Power Committee" early in November.

Of the above estimated number of electrical engineer officers, 16 for Headquarters are all necessary now. Of the ultimate 37 for the Regions, probably only about one third are required at present, but they will need to be supplemented from time to time, as more and more territory becomes liberated, until the ultimate figure of 37 is reached concurrently with the occupation of the whole of Italy. It is expected that considerable difficulty will be met in acquiring this number of experienced officers, with the necessary specialist qualifications, and for this reason alone it is likely to take a considerable time to reach the envisaged eventual strength.

Three of the American civilian engineers have been assigned to the staffs of Regional Engineers: Messrs. Townsend and Hays to Southern Region and Mr. Griffith to Abruzzi-Marche Region. Mr. Solomon was appointed to duties at this Headquarters in connection with housing. By posting these civilian engineers to Regions, it is intended that they shall gain practical experience in the problems and duties of Regional Engineers and their staffs. It is reiterated that every endeavour has been made to meet the individual wishes of these gentlemen and to find them congenial work.

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In the next paragraph is a list of the officers and allied civilian engineers employed both at Headquarters and in the Regions. The number of officers at the Headquarters of the Sub-Commission is 19, and in the Regions 53, making a total of 72. The list includes one Colonel and eight Lieutenant-Colonels, five of whom are American and four British. The one full Colonel, who holds an appointment as Regional Engineer, was recently promoted to that rank, Col. S.J. Edwards, whose name appeared in the list in the September report, has since been posted away from the strength of the Sub-Commission. It may be noted that the anomaly mentioned in para. 18 of the September report still obtains, viz. that the Director (Mr.) and the Deputy Director (Mr.) continue to hold the rank of Lt.Col., although one full Colonel and six Lt.Cols. are subject to their direction.

NOMINAL ROLL OF OFFICERS

(A) At Headquarters:

Lt. Col. L.M. Jenry
Lt. Col. G.L. Rhodes

Capt. A.E. Freedy
Sub. K.A. King

Public Works Division

Lt. Col. V.S. Thompson
Capt. R.W. Seepherd
Major N.A. Hyland
Mr. D. Solomon

Electrical Div.

Mr. Col. J.L. Lepper
Capt. L.W. Laughlin
Major E.J. Barry
Major V.S. Kenton
Major R.A. Bell
Major H.J. Westwood
Major L.G. Price
Capt. W.E. Ironshtausen
Capt. P.M. Vowey
Capt. H.G. Best
Capt. A.E. Duran

(B) In Regions:

Saciliy Region

Major E.A. Boyd

Southern Region

Col. L.J. Hensley
Major W.F. Chamberlin
Capt. E.N.J. Mibbert
Capt. A.G.A. Saul
Capt. L.K. Brown
Capt. R.A. Ryan
Lieut. F.M.H. Stephens
1st Lieut. P.A. Strollin
Mr. H.H. Townsend
Mr. C. Hoff

Ledic-Urbria Region

Lt. Col. G.de C.E. Firdlay, V.O.
Major A.L. Evans

(A) Director Sub-Commission
(B) Deputy Director

(C) Admin. Officer
(E) Asst. Adm. Officer

(C) Chief, Public Works Div.
(A) Asst. to Chief P.W. Div.
(A) P.W.O. South
(A) Housing

(E) Chief Electrical Div.
(A) Asst. to Chief Elect. Div.
(A) Electrical Generation Dept.
(A) Operations & Transm. Dept.
(A) Elect. Util. Officer
(B) Water, Gas & Drainage
(E) Supply Officer (atand)
(A) Elect. Util. Officer
(A) Elect. Util. Officer
(B) Elect. Util. Officer
(A) Elect. Util. Officer

(B) Regional Engineer Officer

(A) Regional Engineer Officer
(A) P.W.O. Liaison Officer No. 2 Dist.
(B) Liaison Officer No. 3 Dist.
(E) Highways
(A) Highways
(A) Elect. Util. Officer
(B) Highways
(A) Elect. Util. Officer
(A) Reg. Engr. Staff.
(A) Reg. Engr. Staff.

(B) Regional Engineer Officer
(E) Public Works Div.

Electrical Div.

Lt. Col. W.M. Laffer
 Capt. L.W. Laughlin
 Major E.J. Parry
 Major V.S. Rendon
 Major F.A. Bell
 Major H.W. Mastwood
 Major L.G. Price
 Capt. E.A. Trumershausen
 Capt. F.A. Varney
 Capt. H.G. Best
 Capt. A.E. Duran

(E) In Regions:Sicilia Region

Major D.A. Boyd

Southern Region

Col. J.J. Hersley
 Major H.F. Chamberlin
 Capt. F.P.J. Hubbard
 Capt. A.G. Boul
 Capt. L.A. Brown
 Capt. R.A. Ryan
 Lieut. F.A.H. Stephens
 1st Lieut. F.A. Scirella
 Mr. H.H. Townsend
 Mr. C. Rapp

Lazio-Umbria Region

Lt. Col. G.de C.E. Firdlay, V.O.
 Major A.L. Evans
 Major A.E. Michael
 Capt. W.F. Laughton
 Capt. N.A. Whitten
 Capt. W.E. Gentry
 Capt. T.F. Spriggs
 Capt. A.J. Greene
 Lieut. E.F. Wade-Brown
 Lieut. J.W.L. Butcher
 Secd. Lt. P.F. Natale

Abruzzo-Marche Region

Lt. Col. Latimer
 Major J.C. Rively
 Capt. J.A. Valen

(E) Chief Electrical Div.
 (A) Asst. to Chief Elect. Div.
 (A) Electrical Generation Dept.
 (A) Operations & Transm. Dept.
 (A) Elect. Util. Officer
 (E) Water, Gas & Drainage
 (E) Supply Officer (atend)
 (A) Elect. Util. Officer
 (A) Elect. Util. Officer
 (A) Elect. Util. Officer
 (A) Elect. Util. Officer

(E) Regional Engineer Officer

(A) Regional Engineer Officer
 (A) F.W.O. Liaison Officer No. 2 Dist.
 (E) Liaison Officer No. 3 Dist.
 (E) Highways
 (A) Highways
 (A) Elect. Util. Officer
 (E) Highways
 (A) Elect. Util. Officer
 (A) Reg. Eng. Staff.
 (A) Reg. Eng. Staff.

112

(E) Regional Engineer Officer
 (E) Public Works Officer
 (A) Public Works Officer
 (A) Public Works Officer
 (A) Public Works Officer
 (A) Highways
 (A) Highways
 (E) Highways
 (E) Elect. Util. Officer
 (E) Elect. Util. Officer
 (A) Public Works Officer

(A) Regional Engineer Officer
 (A) Public Works Officer
 (A) Highways

Gen'l's Office - Air Corps Region

Major J.E. Foster
Mr. F.O. Griffith

(B) Elect. Util. Officer
(C) Reg. Engr. Staff.

Sardinia Region

Now under Italian Control

Toscana Region

Major F.S.L. Age
Lieut. I.J. Rogers
Capt. T.F. Brownlee
Capt. F.R.C. Stephens
Capt. J.W. Perkins
Capt. G.J. Kelson
Major G. Boucher

(B) Regional Engineer Officer
(C) Public Works Officer
(A) Highways
(B) Elect. Util. Officer
(B) Public Works Officer
(A) Elect. Util. Officer
(B) Liaison Officer No. 1 Dist.

Liguria Region

Major W.H. Brown
Major H.H. Gangle
Capt. F.F. Webster
Capt. E.H. Rogers

(A) Regional Engineer Officer
(B) Public Works Officer
(A) Atchd A.L.G. 5th Army
(A) Elect. Util. Officer

Liguria Region

Lt. Col. G.H. Barnett
Major G.P. Buckley
Capt. J.S. Robt Jr.
Capt. E.S. Smith
Major G.C. Eberle
Major J.S. Bennett

(A) Regional Engineer Officer
(B) Public Works Officer
(A) Public Works Officer
(A) P.W.O. (Liguria Region)
(A) Highways Officer
(B) Elect. Util. Officer

Lombardia Region

Lt. Col. C.E. Bolick
Major E.H. Richardson
Major A. Crowther
Major H. Larson

(A) Regional Engineer Officer
(A) Public Works Officer
(B) Atchd. A.L.G. 5th Army
(A) Public Works Officer

Venezia Region

Major W. Knight, J.O.
Capt. E.L. Feldman
Major A.S. Ferley
Capt. J.S.C. Wilson-Deethote
Major M.O. Webster

(B) Regional Engineer Officer
(A) Public Works Officer
(B) Highways
(B) Highways
(A) Elect. Util. Officer.

II

(A) Regional Engineer Officer
 (B) Public Works Officer
 (C) Atchd. A.M.G. 5th Army
 (D) Elect. Util. Officer

(A) Regional Engineer Officer
 (B) Public Works Officer
 (C) Public Works Officer
 (D) F.O. (Liguria region)
 (E) Highways Officer
 (F) Elect. Util. Officer

(A) Regional Engineer Officer
 (B) Public Works Officer
 (C) Atchd. A.M.G. 5th Army
 (D) Public Works Officer

(B) Regional Engineer Officer
 (C) Public Works Officer
 (D) Highways
 (E) Highways
 (F) Elect. Util. Officer

Bullish Region

Major W.A. Sprue
 Major A.H. Gamble
 Capt. H.F. Webster
 Capt. E.H. Rogers

Eleonide Region

Lt. Col. C.H. Birchett
 Major C.F. Buckley
 Capt. J.A. Cobb Jr.
 Capt. E.E. Smith
 Major G.C. Eberle
 Major A.S. Barrett

Locherde Region

Lt. Col. C.E. Bullock
 Major E.H. Richardson
 Major A. Crother
 Major H. Larson

Terzulo Region

Major W. Krieger, B.C.
 Capt. E.E. Feldman
 Major A.G. Ferley
 Capt. J.S.G. Wilcock-Hesthote
 Major M.O. Webster

REGIONAL ENGINEER

24. STORIA REGION (Regional Engineer: Major D.A. BOLD, R.E.)

(a) Work of reconstruction in the cities and on the roads continues. Nothing spectacular is being done but steady progress is being maintained.

(b) The Regional Engineer is the only officer of the I. & U. Sub-Commission left on the island.

(c) Capt. A.B. Freedy, R.E., of the F.O.S. U. Sub-Commission, visited this Region in October. He and the Regional Engineer made two tours of inspection during his visit.

(d) The first tour was made in the provinces of Agrigento and Caltanissetta where a number of bridges on the main southern route (S.S. 115), from Syracuse to Trapani, were seen. As this road is not considered a military highway, these projects have been somewhat delayed, but their progress has been more satisfactory of late and there is no reason why they should not be finished before the rainy season.

(e) It is now possible to use the Geydursc. bridge on S.S. 122. This was a monumental bridge, constructed in the seventeenth century. An excellent job has been done in reconstructing it.

(f) The trip to Massima was made by road over S.S. 113. This highway during the summer months has a veritable engineering site. In a length of 100 km. there were 40 interruptions, including 30 demolished bridges. All works on this highway that are not yet completed are in an advanced stage.

(g) At Massima several works in progress were visited, including jobs in the port, for the N.O.I.C., and repairs to Public Buildings in the city. Locks and furniture for doors, and hardware for windows, were being made on the site, and boys were employed in making nails. The Region has never received any material or transport from the mainland and therefore all work carried out there has been done with local resources.

(h) Capt. Freedy and the Regional Engineer visited the new Prefect of Messina Province, who stressed the need for continuation of the Public Works program in Massima as a means of assisting in the solution of the employment problem.

(i) At Catania various problems in public works were discussed with the Engineers of the Terzo Civile.

(j) During October, 16 estimates for work of ordinary maintenance on military highways were dealt with.

Roads generally are deteriorating somewhat in Sicily on account of the coal shortage. Asphalt and asphalt products cannot be transported from the Italian mines because the railways are rationed for fuel, and steam rolling cannot be done because contractors are unable to obtain coal for the rollers.

111

(k) The Regional Engineer has furnished detailed statistics, as usual, regarding the electrical situation, showing that the island continues to be in a fortunate position compared with the mainland of Italy. Minor and major repairs continue at

Tripartite, were given. As this road is not considered a military highway, these projects have been somewhat delayed, but their progress has been more satisfactory of late and there is no reason why they should not be finished before the rainy season.

(e) It is now possible to use the Capodanno bridge at S.S. 122. This was a monumental bridge, constructed in the seventeenth century, an excellent job has been done in reconstructing it.

(f) The trip to Messina was made by road over S.S. 113. This highway during the summer months was a veritable engineering site. In a length of 100 km. there were 40 interruptions, including 10 demolished bridges. All works on this highway that are not yet completed are in an advanced stage.

(g) At Messina several works in progress were visited, including jobs at the port, for the M.A.I.C., and repairs to public buildings in the city. Locks and furniture for doors, and hardware for windows, were being made on the site, and boys were employed in making nails. The mayor has never received any material or transport from the mainland and therefore all work carried out there has been done with local resources.

(h) Capt. Freedy and the Regional Engineer visited the new Prefect of Messina Province, who stressed the need for continuation of the Public Works Program in Messina as a means of assisting in the solution of the employment problem.

(i) At Catania various problems in public works were discussed with the Engineers of the Civic Civile.

(j) During October, 16 estimates for work of ordinary maintenance on military highways were dealt with.

Roads generally are deteriorating somewhat in Sicily on account of the coal shortage. Asphalt and asphalt products cannot be transported from the Ragusa mines because the railways are rationed for fuel, and steam rolling cannot be done because contractors are unable to obtain coal for the rollers.

III

(k) The Regional Engineer has furnished detailed statistics, as usual, regarding the electrical situation, showing that the island continues to be in a fortunate position compared with the mainland of Italy. Minor and major repairs continue at several power stations.

(l) With the advent of the rainy season there remains no difficulty in the matter of water supplies.

(m) Owing to shortage of coal no gas is being produced in Sicily.

(n) Tramsbys continue to function satisfactorily in Palermo, Catania and Trapani.

(o) During the month the following projects have been dealt with:

HEADQUARTERS
ALLIED COMMISSION
APO 394

Public Works and Utilities Sub-Commission

TYPE OF PROJECT	PROCEDURE Italian Government Territory	PROCEDURE A.S.C. Territory
1. Military - All types, regardless of cost or materials required.	Approved by Reg. Engr. Submitted thru AG. channels to HQ. for final approval.	Approved by Reg. Engr. Submitted thru AG. channels to HQ. for final approval.
2. Civilian - Up to 500,000. (A) No critical materials (B) Requiring critical materials	(A) Approved by Comandante Italian Engineers only. List submitted to Reg. Engr. by 25th of subsequent month for attachment to monthly report. (B) Approved by Reg. Engr. - Submitted thru Italian channels to HQ. for final approval.	Approved by Reg. Engr. Report by Reg. Engr. and month. (B) Approved by Reg. Engr. Submitted thru Italian channels to HQ. for final approval.
3. Civilian - 500,000 to 1,000,000 (A) No critical materials (B) Requiring critical materials	(A) Approved by Reg. Engr. Forwarded by Italian Engr. to the Minister for final approval. List attached to monthly report by Reg. Engr. showing approvals for previous month. (B) Approved by Reg. Engr. Submitted thru Italian channels to HQ. for final approval.	(B) Approved by Reg. Engr. Report by Reg. Engr. showing month. (B) Approved by Reg. Engr. Submitted thru Italian channels for final approval.
4. Civilian - Over 1,000,000 with or without critical materials.	Approved by Reg. Engr. Submitted thru Italian channels to HQ. for final approval.	Approved by Reg. Engr. Submitted thru Italian channels to HQ. for final approval.

EXCEPTIONS TO ABOVE:

Bridges: All plans for structures with span in excess of 10 feet require the approval of HQ.

(A) On projects not requiring financial approval of HQ., 2 copies of plan and 1 copy of estimate shall be submitted thru channels. One copy of plan will be returned to Regional Engineer bearing stamp of approval.

(B) On projects requiring financial approval by HQ., 2 copies of plan and 1 copy of estimate shall be submitted with thru channels as outlined above. One copy of plan will be returned to Regional Engineer together with approved form.

NOTE: This supersedes all previous instructions with reference to routing of project approval documents.

RWS/fr

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

PROCEDURE Italian Government Territory	PROCEDURE A.S.C. Territory
Approved by Reg. Engr. Submitted thru AC. channels to HQ. for final approval.	Approved by Reg. Engr. Submitted thru AC. channels to HQ. for final approval.
(A) Approved by Comitato Inter-Italiani Esperti. List submitted to Reg. Engr. by 25th of subsequent month for attachment to monthly report.	Approved by Reg. Engr. List attached to monthly report by Reg. Engr. showing approvals for previous month.
(B) Approved by Reg. Engr. - Submitted thru Italian channels to HQ. for final approval.	(B) Approved by Reg. Engr. Submitted thru AC. channels to HQ. for final approval.
(C) Approved by Reg. Engr. Forwarded by Italian Engr. to the Minister for final approval. List attached to monthly report by Reg. Engr. showing approvals for previous month.	(C) Approved by Reg. Engr. List attached to monthly report by Reg. Engr. showing approvals for previous month.
(D) Approved by Reg. Engr. Submitted thru Italian channels to HQ. for final approval.	(D) Approved by Reg. Engr. Submitted thru AC. channels for final approval.
Approved by Reg. Engr. Submitted thru Italian channels to HQ. for final approval.	Approved by Reg. Engr. - Submitted thru AC. channels to HQ. for final approval.

open in excess of 10 feet require the approval of HQ.
Approval of HQ. 2 copies of plan and 1 copy of estimate shall be submitted direct to HQ. thru AC.,
turned to Regional Engineer bearing stamp of approval.

Approval by HQ. 2 copies of plan and 1 copy of estimate shall be submitted with financial documents
copy of plan will be returned to Regional Engineer together with approved form AC/1.

Instructions with reference to routing of project approval documents.

APPENDIX A

Description:	Number of personnel	Total estimated cost Millions of lire:	
Public buildings, etc.	63	23.0	
Harbours, lighthouses, etc.	29	4.2	
Roads and rivers	23	17.1	
Bridges	10	9.5	
Water supplies	5	2.9	
Fortifications	3	8.2	
Various other works	14	8.1	
Totals.	137		73 million lire.

The total of expenditure and commitments incurred during the month on all classes of work amounts to approximately 55 million lire.

(p) The Regional Engineer will remain with Engineers of other Regions - because of shortage of transport and materials, having particular stress upon the lack of transport. It appears that materials would be available from local sources, if only they could be transported.

25. SOUTHERN REGION (Regional Engineer: Col. L.J. BERTOLINI, C.O.E.)

(a) Numerous requests for constructional works and repairs have recently been submitted to the Regional Engineer by the Royal Navy, Carabinieri Base Section, No. 3 District, U.S. Army Air Force, certain Sub-Commissions of A.S., and by various Town Majors. Military necessity rendered most of these requests extremely urgent, and it is unfortunate that the Regional Engineer should have had cause to complain of the extreme difficulty he is experiencing in obtaining explosives and other stores essential to the execution of some of these most pressing projects. Another factor hindering some of the work is the continued need of time clearance.

(b) Major Knight and Captain Lambis, who were engineer officers respectively in Bari and Foggia, have both been re-assigned to other Regions. Captain Lambis will be replaced by Captain Brown, and Maj. Knight will be replaced by Maj. Camilleri, now at Catanzaro, who in turn will be replaced by Mr. Ruff, American civilian Engineer.

Mr. Townsend, an American civilian engineer, has been assigned to the Regional Engineer's staff, and has been allotted duties in connection with materials and transport.

(c) The electricity supply situation in Southern Italy has suffered some temporary interruption as a result of the failure, on 29 Oct., of three

(7) The Regional Engineer - in common with Engineers of other Regions - complains of shortage of transport and materials, leaving particular stress upon the lack of transport. It appears that materials would be available from local sources, if only they could be transported.

25. SOUTHERN REGION (Regional Engineer: Col. L.J. REMOUE, D.S.O.)

(a) Numerous requests for constructional works and repairs have recently been submitted to the Regional Engineer by the Royal Navy, Peninsular Base Station, No. 3 District, U.S. Army Air Force, certain Sub-Commissioners of A.C., and by various Town Majors. Military necessity rendered most of these requests extremely urgent, and it is unfortunate that the Regional Engineer should have had cause to complain of the extreme difficulty he is experiencing in obtaining explosives and other stores essential to the execution of some of these most pressing projects. Another factor hindering some of the work is the continued need of wire, etc.

(b) Major Knight and Captain Lambie, who were engineer officers respectively in East and Foggia, have both been re-assigned to other stations. Captain Lambie will be replaced by Captain Brown, and Maj. Knight will be replaced by Maj. Chamberlain, now at Catanzaro, who in turn will be replaced by Mr. Hoff, American civilian Engineer.

Mr. Townsend, an American civilian engineer, has been assigned to the Regional Engineer's staff, and has been allocated duties in connection with materials and transport.

(c) The electricity supply situation in Southern Region has suffered some temporary deterioration as a result of the failure, on 29 Oct., of three generating units in the Orichella Station of the Bina river plants, depriving the system of 55,000 KW. generating capacity. It is hoped that one of the three units will be restored to operation in a few days, but repair of the other two is bound to take a long time and the inevitable delay is likely to be aggravated by transportation difficulties.

Electrical Rehabilitation Programme

(i) The Calera hydro-electric plant has been reconstructed and is now under test. It is hoped that it will be carrying a load of 5,500 KW. by December.

(ii) Reconstruction of the Lato hydro-electric plant has suffered delay owing to lack of transport and cement. This plant will have an output capacity of 6,500 KW.

(iii) Repair of the Mare Lucano hydro-electric plant is expected to be finished in November. This plant will then supply 2,000 KW.

(iv) Repairs to the power lines in the area of the 21st and 22nd Regiments have been completed very early in the morning.

(v) Rehabilitation of the power lines in the area of the 21st and 22nd Regiments has been completed very early in the morning.

Reference has already been made hereto to the estimates submitted by the 'Societa' Meridionale di Elettrotecnica' for financing the repair of war damage suffered by its installations. These estimates must be more than two hundred million lire, and further similar estimates are expected, from other undertakings.

In Naples facilities 210 and 211, requests for electric power (excluding requests for electric lights) were received during the month. 64 of these were recommended, 115 rejected and 34 declined.

A meeting was held with the manager of all electric power undertakings in Southern Italy with the object of relieving co-ordination in solving the general problem of power distribution and transmission line maintenance. Incidentally, this meeting brought out very clearly the magnitude of the Italian Government's 'industrial indebtedness', towards the population of which no payment has yet been made. Various technical problems were discussed and it was decided nevertheless to hold a similar meeting at regular intervals.

With even greater vigour than before, the Regio and Regione has reiterated his complaints about the serious lack of materials and road transport so vitally needed by the Societa' Meridionale di Elettrotecnica, both for maintaining the operation of its system and for the repair of its installations. The demand for electricity increases daily, and the Regio and Regione points out that this Utility Corporation will be unable to meet the demand, unless something can be done to ease its road transport and materials.

Naples recently suffered a 24-hour interruption in its electricity supply due to the shortage of materialization funds by 40%, but if the electricity Undertaking had had trucks at its disposal, the service could have been restored in the quarter of that time.

(a) The above-mentioned shortage of material and transport, which promises soon to bring progress to a halt, is not a local problem, nor is it confined to electrical needs. For from Italy's peculiar to Naples, it exists with equal vigour in the Italian Government's. Indeed, it is well known to be the general complaint of 10-15-20-30-40-50-60-70-80-90-100-110-120-130-140-150-160-170-180-190-200-210-220-230-240-250-260-270-280-290-300-310-320-330-340-350-360-370-380-390-400-410-420-430-440-450-460-470-480-490-500-510-520-530-540-550-560-570-580-590-600-610-620-630-640-650-660-670-680-690-700-710-720-730-740-750-760-770-780-790-800-810-820-830-840-850-860-870-880-890-900-910-920-930-940-950-960-970-980-990-1000-1010-1020-1030-1040-1050-1060-1070-1080-1090-1100-1110-1120-1130-1140-1150-1160-1170-1180-1190-1200-1210-1220-1230-1240-1250-1260-1270-1280-1290-1300-1310-1320-1330-1340-1350-1360-1370-1380-1390-1400-1410-1420-1430-1440-1450-1460-1470-1480-1490-1500-1510-1520-1530-1540-1550-1560-1570-1580-1590-1600-1610-1620-1630-1640-1650-1660-1670-1680-1690-1700-1710-1720-1730-1740-1750-1760-1770-1780-1790-1800-1810-1820-1830-1840-1850-1860-1870-1880-1890-1900-1910-1920-1930-1940-1950-1960-1970-1980-1990-2000-2010-2020-2030-2040-2050-2060-2070-2080-2090-2100-2110-2120-2130-2140-2150-2160-2170-2180-2190-2200-2210-2220-2230-2240-2250-2260-2270-2280-2290-2300-2310-2320-2330-2340-2350-2360-2370-2380-2390-2400-2410-2420-2430-2440-2450-2460-2470-2480-2490-2500-2510-2520-2530-2540-2550-2560-2570-2580-2590-2600-2610-2620-2630-2640-2650-2660-2670-2680-2690-2700-2710-2720-2730-2740-2750-2760-2770-2780-2790-2800-2810-2820-2830-2840-2850-2860-2870-2880-2890-2900-2910-2920-2930-2940-2950-2960-2970-2980-2990-3000-3010-3020-3030-3040-3050-3060-3070-3080-3090-3100-3110-3120-3130-3140-3150-3160-3170-3180-3190-3200-3210-3220-3230-3240-3250-3260-3270-3280-3290-3300-3310-3320-3330-3340-3350-3360-3370-3380-3390-3400-3410-3420-3430-3440-3450-3460-3470-3480-3490-3500-3510-3520-3530-3540-3550-3560-3570-3580-3590-3600-3610-3620-3630-3640-3650-3660-3670-3680-3690-3700-3710-3720-3730-3740-3750-3760-3770-3780-3790-3800-3810-3820-3830-3840-3850-3860-3870-3880-3890-3900-3910-3920-3930-3940-3950-3960-3970-3980-3990-4000-4010-4020-4030-4040-4050-4060-4070-4080-4090-4100-4110-4120-4130-4140-4150-4160-4170-4180-4190-4200-4210-4220-4230-4240-4250-4260-4270-4280-4290-4300-4310-4320-4330-4340-4350-4360-4370-4380-4390-4400-4410-4420-4430-4440-4450-4460-4470-4480-4490-4500-4510-4520-4530-4540-4550-4560-4570-4580-4590-4600-4610-4620-4630-4640-4650-4660-4670-4680-4690-4700-4710-4720-4730-4740-4750-4760-4770-4780-4790-4800-4810-4820-4830-4840-4850-4860-4870-4880-4890-4900-4910-4920-4930-4940-4950-4960-4970-4980-4990-5000-5010-5020-5030-5040-5050-5060-5070-5080-5090-5100-5110-5120-5130-5140-5150-5160-5170-5180-5190-5200-5210-5220-5230-5240-5250-5260-5270-5280-5290-5300-5310-5320-5330-5340-5350-5360-5370-5380-5390-5400-5410-5420-5430-5440-5450-5460-5470-5480-5490-5500-5510-5520-5530-5540-5550-5560-5570-5580-5590-5600-5610-5620-5630-5640-5650-5660-5670-5680-5690-5700-5710-5720-5730-5740-5750-5760-5770-5780-5790-5800-5810-5820-5830-5840-5850-5860-5870-5880-5890-5900-5910-5920-5930-5940-5950-5960-5970-5980-5990-6000-6010-6020-6030-6040-6050-6060-6070-6080-6090-6100-6110-6120-6130-6140-6150-6160-6170-6180-6190-6200-6210-6220-6230-6240-6250-6260-6270-6280-6290-6300-6310-6320-6330-6340-6350-6360-6370-6380-6390-6400-6410-6420-6430-6440-6450-6460-6470-6480-6490-6500-6510-6520-6530-6540-6550-6560-6570-6580-6590-6600-6610-6620-6630-6640-6650-6660-6670-6680-6690-6700-6710-6720-6730-6740-6750-6760-6770-6780-6790-6800-6810-6820-6830-6840-6850-6860-6870-6880-6890-6900-6910-6920-6930-6940-6950-6960-6970-6980-6990-7000-7010-7020-7030-7040-7050-7060-7070-7080-7090-7100-7110-7120-7130-7140-7150-7160-7170-7180-7190-7200-7210-7220-7230-7240-7250-7260-7270-7280-7290-7300-7310-7320-7330-7340-7350-7360-7370-7380-7390-7400-7410-7420-7430-7440-7450-7460-7470-7480-7490-7500-7510-7520-7530-7540-7550-7560-7570-7580-7590-7600-7610-7620-7630-7640-7650-7660-7670-7680-7690-7700-7710-7720-7730-7740-7750-7760-7770-7780-7790-7800-7810-7820-7830-7840-7850-7860-7870-7880-7890-7900-7910-7920-7930-7940-7950-7960-7970-7980-7990-8000-8010-8020-8030-8040-8050-8060-8070-8080-8090-8100-8110-8120-8130-8140-8150-8160-8170-8180-8190-8200-8210-8220-8230-8240-8250-8260-8270-8280-8290-8300-8310-8320-8330-8340-8350-8360-8370-8380-8390-8400-8410-8420-8430-8440-8450-8460-8470-8480-8490-8500-8510-8520-8530-8540-8550-8560-8570-8580-8590-8600-8610-8620-8630-8640-8650-8660-8670-8680-8690-8700-8710-8720-8730-8740-8750-8760-8770-8780-8790-8800-8810-8820-8830-8840-8850-8860-8870-8880-8890-8900-8910-8920-8930-8940-8950-8960-8970-8980-8990-9000-9010-9020-9030-9040-9050-9060-9070-9080-9090-9100-9110-9120-9130-9140-9150-9160-9170-9180-9190-9200-9210-9220-9230-9240-9250-9260-9270-9280-9290-9300-9310-9320-9330-9340-9350-9360-9370-9380-9390-9400-9410-9420-9430-9440-9450-9460-9470-9480-9490-9500-9510-9520-9530-9540-9550-9560-9570-9580-9590-9600-9610-9620-9630-9640-9650-9660-9670-9680-9690-9700-9710-9720-9730-9740-9750-9760-9770-9780-9790-9800-9810-9820-9830-9840-9850-9860-9870-9880-9890-9900-9910-9920-9930-9940-9950-9960-9970-9980-9990-10000-10010-10020-10030-10040-10050-10060-10070-10080-10090-10100-10110-10120-10130-10140-10150-10160-10170-10180-10190-10200-10210-10220-10230-10240-10250-10260-10270-10280-10290-10300-10310-10320-10330-10340-10350-10360-10370-10380-10390-10400-10410-10420-10430-10440-10450-10460-10470-10480-10490-10500-10510-10520-10530-10540-10550-10560-10570-10580-10590-10600-10610-10620-10630-10640-10650-10660-10670-10680-10690-10700-10710-10720-10730-10740-10750-10760-10770-10780-10790-10800-10810-10820-10830-10840-10850-10860-10870-10880-10890-10900-10910-10920-10930-10940-10950-10960-10970-10980-10990-11000-11010-11020-11030-11040-11050-11060-11070-11080-11090-11100-11110-11120-11130-11140-11150-11160-11170-11180-11190-11200-11210-11220-11230-11240-11250-11260-11270-11280-11290-11300-11310-11320-11330-11340-11350-11360-11370-11380-11390-11400-11410-11420-11430-11440-11450-11460-11470-11480-11490-11500-11510-11520-11530-11540-11550-11560-11570-11580-11590-11600-11610-11620-11630-11640-11650-11660-11670-11680-11690-11700-11710-11720-11730-11740-11750-11760-11770-11780-11790-11800-11810-11820-11830-11840-11850-11860-11870-11880-11890-11900-11910-11920-11930-11940-11950-11960-11970-11980-11990-12000-12010-12020-12030-12040-12050-12060-12070-12080-12090-12100-12110-12120-12130-12140-12150-12160-12170-12180-12190-12200-12210-12220-12230-12240-12250-12260-12270-12280-12290-12300-12310-12320-12330-12340-12350-12360-12370-12380-12390-12400-12410-12420-12430-12440-12450-12460-12470-12480-12490-12500-12510-12520-12530-12540-12550-12560-12570-12580-12590-12600-12610-12620-12630-12640-12650-12660-12670-12680-12690-12700-12710-12720-12730-12740-12750-12760-12770-12780-12790-12800-12810-12820-12830-12840-12850-12860-12870-12880-12890-12900-12910-12920-12930-12940-12950-12960-12970-12980-12990-13000-13010-13020-13030-13040-13050-13060-13070-13080-13090-13100-13110-13120-13130-13140-13150-13160-13170-13180-13190-13200-13210-13220-13230-13240-13250-13260-13270-13280-13290-13300-13310-13320-13330-13340-13350-13360-13370-13380-13390-13400-13410-13420-13430-13440-13450-13460-13470-13480-13490-13500-13510-13520-13530-13540-13550-13560-13570-13580-13590-13600-13610-13620-13630-13640-13650-13660-13670-13680-13690-13700-13710-13720-13730-13740-13750-13760-13770-13780-13790-13800-13810-13820-13830-13840-13850-13860-13870-13880-13890-13900-13910-13920-13930-13940-13950-13960-13970-13980-13990-14000-14010-14020-14030-14040-14050-14060-14070-14080-14090-14100-14110-14120-14130-14140-14150-14160-14170-14180-14190-14200-14210-14220-14230-14240-14250-14260-14270-14280-14290-14300-14310-14320-14330-14340-14350-14360-14370-14380-14390-14400-14410-14420-14430-14440-14450-14460-14470-14480-14490-14500-14510-14520-14530-14540-14550-14560-14570-14580-14590-14600-14610-14620-14630-14640-14650-14660-14670-14680-14690-14700-14710-14720-14730-14740-14750-14760-14770-14780-14790-14800-14810-14820-14830-14840-14850-14860-14870-14880-14890-14900-14910-14920-14930-14940-14950-14960-14970-14980-14990-15000-15010-15020-15030-15040-15050-15060-15070-15080-15090-15100-15110-15120-15130-15140-15150-15160-15170-15180-15190-15200-15210-15220-15230-15240-15250-15260-15270-15280-15290-15300-15310-15320-15330-15340-15350-15360-15370-15380-15390-15400-15410-15420-15430-15440-15450-15460-15470-15480-15490-15500-15510-15520-15530-15540-15550-15560-15570-15580-15590-15600-15610-15620-15630-15640-15650-15660-15670-15680-15690-15700-15710-15720-15730-15740-15750-15760-15770-15780-15790-15800-15810-15820-15830-15840-15850-15860-15870-15880-15890-15900-15910-15920-15930-15940-15950-15960-15970-15980-15990-16000-16010-16020-16030-16040-16050-16060-16070-16080-16090-16100-16110-16120-16130-16140-16150-16160-16170-16180-16190-16200-16210-16220-16230-16240-16250-16260-16270-16280-16290-16300-16310-16320-16330-16340-16350-16360-16370-16380-16390-16400-16410-16420-16430-16440-16450-16460-16470-16480-16490-16500-16510-16520-16530-16540-16550-16560-16570-16580-16590-16600-16610-16620-16630-16640-16650-16660-16670-16680-16690-16700-16710-16720-16730-16740-16750-16760-16770-16780-16790-16800-16810-16820-16830-16840-16850-16860-16870-16880-16890-16900-16910-16920-16930-16940-16950-16960-16970-16980-16990-17000-17010-17020-17030-17040-17050-17060-17070-17080-17090-17100-17110-17120-17130-17140-17150-17160-17170-17180-17190-17200-17210-17220-17230-17240-17250-17260-17270-17280-17290-17300-17310-17320-17330-17340-17350-17360-17370-17380-17390-17400-17410-17420-17430-17440-17450-17460-17470-17480-17490-17500-17510-17520-17530-17540-17550-17560-17570-17580-17590-17600-17610-17620-17630-17640-17650-17660-17670-17680-17690-17700-17710-17720-17730-17740-17750-17760-17770-17780-17790-17800-17810-17820-17830-17840-17850-17860-17870-17880-17890-17900-17910-17920-17930-17940-17950-17960-17970-17980-17990-18000-18010-18020-18030-18040-18050-18060-18070-18080-18090-18100-18110-18120-18130-18140-18150-18160-18170-18180-18190-18200-18210-18220-18230-18240-18250-18260-18270-18280-18290-18300-18310-18320-18330-18340-18350-18360-18370-18380-18390-18400-18410-18420-18430-18440-18450-18460-18470-18480-18490-18500-18510-18520-18530-18540-18550-18560-18570-18580-18590-18600-18610-18620-18630-18640-18650-18660-18670-18680-18690-18700-18710-18720-18730-18740-18750-18760-18770-18780-18790-18800-18810-18820-18830-18840-18850-18860-18870-18880-18890-18900-18910-18920-18930-18940-18950-18960-18970-18980-18990-19000-19010-19020-19030-19040-19050-19060-19070-19080-19090-19100-19110-19120-19130-19140-19150-19160-19170-19180-19190-19200-19210-19220-19230-19240-19250-19260-19270-19280-19290-19300-19310-19320-19330-19340-19350-19360-19370-19380-19390-19400-19410-19420-19430-19440-19450-19460-19470-19480-19490-19500-19510-19520-19530-19540-19550-19560-19570-19580-19590-19600-19610-19620-19630-19640-19650-19660-19670-19680-19690-19700-19710-19720-19730-19740-19750-19760-19770-19780-19790-19800-19810-19820-19830-19840-19850-19860-19870-19880-19890-19900-19910-19920-19930-19940-19950-19960-19970-19980-19990-20000-20010-20020-20030-20040-20050-20060-20070-20080-20090-20100-20110-20120-20130-20140-20150-20160-20170-20180-20190-20200-20210-20220-20230-20240-20250-20260-20270-20280-20290-20300-20310-20320-20330-20340-20350-20360-20370-20380-20390-20400-20410-20420-20430-20440-20450-20460-20470-20480-20490-20500-20510-20520-20530-20540-20550-20560-20570-20580-20590-20600-20610-20620-20630-20640-20650-20660-20670-20680-20690-20700-20710-20720-20730-20740-20750-20760-20770-20780-20790-20800-20810-20820-20830-20840-20850-20860-20870-20880-20890-20900-20910-20920-20930-20940-20950-20960-20970-20980-20990-21000-21010-21020-21030-21040-21050-2106

provision of power distribution and maintenance. Incidentally, this meeting brought out very clearly the maintenance of the Italian Government's "assured independence", meaning the liquidation of which no payments have yet been made. Various technical problems were discussed and it was decided to refer them to the Italian Government for further information.

With even greater vigor than before, the Italian and English have reiterated his complaint about the serious lack of materials and road transport so vitally needed by the Soviet Union in "Belarus". Both for maintaining the operation of the system for power and for the repair of all installations. The demand for electricity is increasing rapidly, and the Italian Government points out that this utility installation has been delayed and it is unable to meet the demand, unless supplies for the system are provided to provide transport and materials.

English recently suffered a 24-hour interruption in its electricity supply due to the lack of transmission lines to it. But if the electricity supply undertaking had had stocks of its supplies, the system could have been restored in one quarter of that time.

(3) The above-mentioned situation of lack of transport, which promises to bring progress to a halt, is not a new condition, nor is it confined to electrical needs. For the last few years, it exists with equal seriousness in the East and Central Asia. Indeed, it is well known to be the general complaint of 40-50% of the population. "Soviet Union, AC/4.4.10.10" and "Letters", says the Regional Secretary, "have been farmed through channels, but to date the situation remains the same. . . . using 100/100 for supplies is entirely unworkable." The following is a further verbatim quotation from his current observations on this subject:

"Actually, except for a few remote cases, all materials procured by this Section have been through Military Units in this area."

It is the opinion of this Section that control of materials in this area should be decentralized. It has been our experience that many Army Units are ready to surrender control of present stocks but few are prone to increase these stocks for the civilian and military demands. Paradoxically, any replenishment from this Section increases rather than decreases

(4) Gas production in the Soviet Union is increasing, and repair of the gas works is progressing favorably. Another storage tank for industrial gas has been put into commission, and the repair of other tanks and the main battery for distillation is well in hand.

Gas production has also been made in rehabilitating the gas distribution system of Baku. Pipe lines in four more streets having been replaced to a large extent, greatly improving the pressure throughout the districts of Baku and the San Petros and San Petros work services or restoration of the main pipe line in Vashilovskaya.

Gas production in Baku, however, is still some 10% below normal, though in Baku difficulty has been experienced in obtaining suitable gas coal.

(5) For the Baku water supply, three pumps are being carried out on the aqueduct at Terentevskaya. As on the other pumps, repair of the Chislenskiy reservoir has been completed and the reservoir is now in service.

Numerous repairs to the water distribution system have been carried out in various parts of the city.

Elsewhere in the region, excepting the Caucasus district, the water supply

situation appears to be quite satisfactory. In Bari Province all restrictions on water consumption have been lifted. The Regional Engineer observes in regard to the Catanzaro zone that the water supply system of the average commune is inadequate and generally in a bad state of repair. He advises that a comprehensive survey should be made of the water supplies in that zone, in order that repair projects may be initiated in the interests of public health. The Genio Civile has, in fact, already been requested to embark on this work.

(g) Road works in the Region have been limited to maintenance and minor repairs, which, however, have continued on an extensive scale and have made good progress despite the difficulties imposed by bad weather. Reconstruction of eight bridges has been completed during the month. Many others are in hand, and at least five new contracts have recently been let.

(h) There exists a serious shortage of stores for the construction of military highways, railways and airports. The Regional Engineer has, however, recently succeeded in establishing a working agreement with the U.S. Air Corps for pooling their joint resources and equipment with the object of increasing the overall production, and by similar co-operation, it is hoped also to reduce the cost of the stores. The great 'bottleneck' in this operation is - need it be said? - lack of road transportation. Co-ordinated efforts are, therefore, being made to use trolleybuses and narrow gauge railways to the utmost, wherever they can be pressed into service in lieu of transport by road.

(i) The Regional Engineer reported that the officials of the Genio Civile of Naples have been displaying an attitude of complete loyalty and disinterest. This has been brought to the attention of the Ministry of Public Works. It may be remarked, with some bearing on the subject - though not by way of justification - that such officials are considered to be very poorly paid.

(j) Difficulties, in the Bari district, regarding the operation and maintenance of M.L. vehicles on loan for work on military highways, was mentioned in para. 22 (h) of the September report. An appreciable improvement in this matter can now be reported.

26. LUCO-UMPIA REGION (Regional Engineer: Lt. Col. G. de C.S. FIDELI, V.C., I.C., I.E.).

(a) The additional officers were assigned to the Regional Engineer's staff during the month, and the services of the others were made available on temporary loan. This additional assistance, which has been badly needed, was welcomed by the Regional Engineer.

(b) The Sindaco of the Comune of Rome has formed a Committee for the co-ordination of technical services. The Regional Engineer speaks warmly of this and states that the initial meeting of the Committee has given promise of constructive and helpful co-operation.

(d) The Home Gas supply continues its restricted service, limited as it is to the quantity of available gas.

(e) The home water supply continues to receive particular technical attention. Repairs to the headworks of the "Acqua Marcia", at Anagni and Fregene, have been allowed considerably by lack of transport (particularly for want of tires) and by bad weather. Three bursts in the distribution system recently occurred and were promptly dealt with.

Several water supply projects in the Region have been approved for execution, including part of a scheme for repairing the badly damaged water distribution system of Tarril. Actually, 69 projects, representing a value of 59 million lire, were handled during the month, although financial approval has as yet been given only to about 8 million lire out of that total.

(2) During the month, 43 bridge repair schemes for Military highways, were dealt with, bringing the total of such works to 137, of which 19 have been completed. New maintenance contracts have been let for Military and State highways and the work now in hand is widely distributed over the 1,400 Km. of roads of this class throughout the Region. There are, however, difficulties on account of shortage of bitumen and stone and also lack of transport.

Or more than Military and State highway, 72 bridge projects were approved during the month, bringing the total to 146, which includes 40 that are awaiting ministerial approval. This number does not include bridges which were financed in the city area, of which there are many in Viñarte, Pícoli and Baruta.

(c) The Housing program was completely obstructed by financial difficulties up to the end of September, but the situation improved slightly during October, when projects to provide new dwellings for 2,300 persons received approval.

Limited authority has also been obtained to carry out repairs to private houses. In Terzi Province alone, 20 projects, totalling 7 million lire, have already been approved and financed under that authority. "Homeless" persons in Frosinone and Littoria Provinces approximate 196,000, about 25% of whom could have been housed by now, had it not been for administrative and financial delays, the preparation of decrees, etc. Technical instructions for the work were, in fact, issued in July, and the subsequent enforcement of execution is open to severe criticism.

(h) Clearance of debris in the City of Rome amounted to 5,700 cu. y. in October, and the City Authorities, despite shortage of time and equipment, succeeded in keeping the streets reasonably clean. Street repairs in the City continue rather slowly, being limited by want of bitumen and cement. There has been some progress in re-laying the worst timolines.

(1) Repair of infrastructure in the sewage system of Haro is still incomplete.

(j) At Rimicore Harbour (rear Fama), dock repairs and the raising of sunken vessels have progressed favourably, though they have been impeded by difficulty in obtaining operating plant and divers, so much is the need for more important.

(2) The Imperial Engineer complains of the general shortage of cement, bricks, and bitumen; the necessity of all of which in the execution of public works required no explanation. It is not merely a local problem; it exists in every region and is a source of complaint throughout the country.

(I) Speaking of the Civic Circle, the Federal Engineer expresses a high regard

clashes throughout the Region. There are, however, difficulties in account of shortage of bitumen and stone and also lack of transport.

On roads other than Military and State highways, 72 bridge projects were approved during the month, bringing the total to 146, which includes 10 that are awaiting administrative approval. This number does not include bridges which were financed in the army area, of which there are many in Viterbo, Vistal and Perugia.

(c) The Housing program was completely obstructed by financial difficulties up to the end of September, but the situation improved slightly during October, when projects to provide new dwellings for 2,800 persons received approval.

Limited authority has also been obtained to carry out repairs to private houses. In farm provinces alone, 20 projects, totalling 7 million lire, have already been approved and financed under that authority. At least persons in Rome and Litterio provinces aggregate 136,000, about 25% of whom could have been housed by now, had it not been for administrative and financial delays, the preparation of decrees, etc. Technical instructions for the work were, in fact, issued in July, and the subsequent delay of execution is open to severe criticism.

(d) Clearance of debris in the City of Rome amounted to 5,700 cu.m. in October, and the City Authorities, despite shortage of transport, succeeded in keeping the streets reasonably clear. Street repairs in the City continue rather slowly, being limited by want of bitumen and cement. There has been some progress in relaying the worst tramlines.

(e) Repair of war-damage in the sewerage system of Rome is still incomplete, but good progress has been made.

(f) At Fiumicino Harbour (near Rome), dock repairs and the raising of sunken vessels have progressed favourably, though they have been impeded by difficulty in obtaining operating plant and divers, so much in demand for more important ports.

(g) The Regional Engineer complains of the general shortage of cement, bricks, and bitumen; the necessity of all of which in the execution of public works requires an explanation. It is not merely a local problem: it exists in every Region and is a source of complaint throughout the country.

(h) Speaking of the Genio Civile, the Regional Engineer expresses a high regard for the energy, co-operation and ability of the Ispettore Generale of the Genio Civile. There is, however, a pressing need for additional staff, with which the Ispettore Generale cannot be expected to carry out rapidly and economically the extensive works on hand, amounting in value to some 350 million Lire.

(i) Progress in mine clearance has been concentrated in areas of urgent work. These vital operations are being carried out partly by a military unit and partly by civil contractors.

(j) Considerable headway has been made in restoring provisional drainage for the Portine Marshes area, and important flood control works are in hand at Porto Maffione. The principal object of the latter is to safeguard Route 7, the uninterrupted use of which is a military necessity.

27. UNTER-VALLE REGION (Regional Engineer Lt. Col. G. L. LINDER, C.E.)

(a) Pesaro, Urbino and Ancona are still under control of Eighth Army. The Commandos of Ancona, which comprises the provinces of Pescara, Chieti, Terni, and Aquila, was returned to the Italian Administration on 16th October.

The forward office which the Regional Engineer set up at Ancona in September, in order to facilitate liaison with Eighth Army Engineers and Eighth Army A.C., has proved its worth.

(b) Problems in Ancona have been aggravated by the refusal of the provincial authorities to cooperate in an order to find the Genio Civile officials and bring them back into the town. These engineers are at present deployed in neighbouring villages. Their dispersal, combined with want of transport and communication facilities, obviously precludes efficient working.

In Pesaro-Urbino there is still much confusion and as yet there is no 'Cape' of Genio Civile in the province. The Ancona official was asked to act provisionally in this capacity when A.C., assumed control of the area, but this arrangement has not been satisfactory for many reasons; principally because there is more work than he can properly handle in Ancona, added to which the difficulties of communication and transport make it impossible for him to keep in touch with the whole area. Speaking of Pescara, the Regional Engineer says: 'All bridges are destroyed and communication is impossible in most of the Province.' 'Pescara is still in the emergency stage....'. The provision of a 'Cape' of Genio Civile was, of course, urgently requested, and it is expected that he will have arrived and taken up his duties by an early date in November.

(c) In addition to the Allied officer personnel listed in para. 23, an Italian officer - Maj. Morrelli of the Genio M.A. - who is attached to the A.C., has been assigned to the Region and has been sent to assist the Regional Engineer's forward staff.

(d) Further to what was said in sub-para. (b) above, the Regional Engineer has also reported several other difficulties regarding officials - or lack of officials - at the Genio Civile. Details need not be quoted here, but it should be noted that such personnel difficulties are very real. Absence of office and living accommodation for Genio Civile officials is in some cases a serious obstacle.

(e) An 'overriding' map, showing revised priorities of military highways in M.1 District has been received, but there has been no alteration of the priorities in M.3 District (Previously M.2 District).

Progress of works on military highways has been maintained, and the recent rains have shown up the weak spots. Removal of Bailey bridges for transfer to the forward area has at times been things difficult, though this is by no means an extraordinary problem. Contracts for permanent reconstruction of several bridges have been let, and projects for others are in preparation.

On Route 16, the bridge over the S. Sisto has been completed. **108** The diversion over the Braccadoro and Acquedotto rivers has also been completed and contracts have been approved for reconstructing the bridges at these points. Between Aquila, Ancona and Foggia, on Route 17, contractors are at work on two bridges and also on culverts and retaining walls. In Macerata Province, bridges over the Acquedotto, the As. 13 and the Foss. a Mare were half constructed, in such a way as to pass traffic at the earliest moment, and are now being completed. Investments to support Bailey bridges are being built on the Chienti and Fossato rivers.

Of eleven bridges under construction on Route 16 at Ancona and Pesaro

of communication and transport make it impossible for him to keep in touch with the whole area. Speaking of Pesaro, the Regional Engineer says: "All bridges are destroyed and communication is impossible in most of the Province." "Pesaro is still in the emergency stage....". The provision of a "Camp" of Campo Civile was, of course, urgently requested, and it is expected that he will have arrived and taken up his duties by an early date in November.

(c) In addition to the Allied officer personnel listed in para. 23, an Italian officer - Maj. Borellin of the Genio R.A. - who is attached to the A.C., has been assigned to the Region and has been sent to assist the Regional Engineer's forward staff.

(d) Further to what was said in sub-para. (b) above, the Regional Engineer has also reported several other difficulties regarding officials. A lack of officials at the Campo Civile. Details need not be quoted here, but it should be noted that such personnel difficulties are very real. Absence of office and living accommodation for Genio Civile officials is in some cases a serious obstacle.

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Of eleven bridges under construction on Route 16 in Ancona and Pesaro Provinces, ten should be finished very early in November. All of these were financed by the Army.

The Regional Engineer has reported in detail on numerous works in progress on other highways, but a brief summary must suffice here. The operations are extensive but they are, nevertheless, progressing well. State roads are being opened up as their need is seen, and Provincial roads are receiving attention in relation to their importance. Numerous bridges and temporary diversions are under construction, and seven of the latter have been completed.

There is a general insufficiency of road transport for these works, especially in Macerata.

It is worthy of note that in Ancona and Pesaro the enemy carried out demolitions with an exceptional thoroughness, seldom equalled in the more southerly regions. In addition to works of essentially military necessity, numerous other bridge repairs and diversions are, therefore, having to be hastened in order to restore communications essential to A.M.G. administration and supplies.

(f) Sanction of the Naval authorities has been obtained to a project for removing several sunken vessels from the mouth of the Misa river in order to prevent flooding of the town of Sanigallia. The scheme is under preparation and the contract is expected to be let shortly.

(g) No serious difficulties in water supply have been encountered during the month. Schemes have been announced for repairs to the supplies of Pescara, Novelli, Castelvecchio-Sabotoc and Capestrano, and for the construction of a reservoir for Francavilla Mare.

(h) A project for repairing the sewers of Pescara has been approved and other drainage schemes are in course of preparation. Urgent work has also been approved and put in hand for restoring the artificial drainage of the Fucine lake bed, near Avezzano, essential to the maintenance of 15,000 hectares of highly productive agricultural land.

(i) A number of projects for rebuilding government offices, schools, barracks, etc., have been approved, the largest being for the reconstruction of Avezzano prison at an estimated cost of 2,500,000 lire.

(j) For their supplies of electricity, Chieti and Pescara are still dependent upon the Fucine in power station and a diesel-driven plant in Pescara itself, but repairs to the 60 kv. transmission line from Lanciano to Pescara are nearing completion, and power from the south should thus become available early in November.

In Aquila Province the electricity available from hydro-electric sources has increased with the effect of the rains.

Since 1 Oct Aquila has been able to take its power from the Bolghetta station, thus enabling Avezzano to draw its energy from Fucine again. Ascoli Piceno and Teramo share with Aquila the output of the Bolghetta and Carrara generating stations.

The municipality owned power stations of Macerata Province, although damaged, have been sufficiently restored to furnish an almost normal service.

The electrical installations in Ancona Province suffered heavy damage. The situation there is being controlled jointly by the Army and A.M.G. engineers.

The situation with the supply companies in collaboration with the supply companies.

Pesaro Province is almost entirely without electric power.

(k) The Regional Engineer complains strongly of shortage of materials - especially cement and bitumen - and of the inadequacy of transport. He has much to say on this latter subject, but to quote his remarks would merely be to echo the complaints of other Regional Engineers, already reported herein.

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(j) For their supplies of electricity, Chieti and Pescara are still dependent upon the Pinetola power station and a diesel-driver plant in Pescara itself, but repairs to the 60 KV. transmission line from Lenciano to Pescara are nearing completion, and power from the south should thus become available early in November.

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28. SARDEGNA REGION (No Regional Engineer)

(a) Clearance of debris in Cagliari City is now reported to be 84% complete. 7,700 cu.m. of material having been removed during the month at a cost of about 1,200,000 Lire.

Repair of public buildings has continued, particular attention having been given to the schools in view of their intended re-opening on or about 6th November.

(b) A program has been prepared for repair of such private buildings as can be expeditiously rendered habitable, in order to accommodate homeless families as soon as possible. These repairs are intended to be finished by 31st December next. The estimated cost of carrying out the program is a little over 100 million lire, of which 80 million applies to the town of Cagliari.

(c) Gas is now being produced in Cagliari, but its distribution is restricted to about one fifth of the City area and cannot be extended until greater supplies of fuel become available.

(d) Rehabilitation of the electricity distribution network in Cagliari has continued, and the public illumination, mentioned in the September report, has since been extended to other streets.

(e) The water supply situation in Cagliari, which has been serious for some months past, has been improved somewhat by the recent rains. The strict rationing system that is in force cannot, however, be relaxed.

(f) Rehabilitation of certain power stations, harbour works, highways, bridges, and other sundry items is reported as having made steady progress, but none of these is deserving of special comment.

(g) The Provveditore (by whom the October report on the Region was submitted) has again discussed in some detail the works which are being pursued as part of the Island's fight against malaria. More than 11 million lire has been spent on such works during October and a further program, valued at 92 million lire, has been drawn up for other urgent work. These measures will also result in restoration of damaged land-drainage systems and consequent betterment of agriculture.

(h) The Provveditore has again spoken of the lack of transport and building materials. This, as has been said before, is a great and widespread handicap, and the Provveditore's voice is but

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29. TOSCANA REGION (Regional Engineer: Major P.S.L. LEE, R.E.)

(a) Activities in this region during the past month were further extended with the taking over of more territory from Fifth Army.

(b) The Regional Engineer's office, which was moved from Siena to Florence in September, is now fully organized and a number of Italian engineers have been engaged to render assistance in each branch of the department. The office is situated in the same building as that of the General Inspector (Tuscany) of the Ministry of Public Works, with whom the Regional Engineer is thus able to keep in close touch.

(c) In connection with the Regional electric power situation two conferences were held, at which were represented Fifth Army, No. 1 District, Peninsular Base Section, A.A.S. - A.M.G. and the Bell-Valdarno Electric power undertaking. The principal purpose of these conferences was to determine the order of priority for reconstruction of power transmission lines. The Regional Engineer was requested to assume responsibility for rehabilitating two lines of major importance, viz. the 125 KV. line, Pias della Rocca - San Romano - Tavernuzze, and a similar line (for State Railway), Tavernuzze - Riferudi.

Rehabilitation of the generating plant at Selvena is held up for want of certain parts ordered from Rome by the Società Romana di Eletticità.

A small privately owned hydro-electric station in the vicinity of S. Marcello was found undamaged. Two units, each of 450 KVA capacity, are now in operation at this station, and a third unit of 900 KVA., which requires some repair, will shortly be in service. This station now supplies the S. Marcello district and also furnishes about 500 KVA. to Pistoia for water pumping and other essential services. It is hoped, when the 900 KVA. unit has been repaired, to activate certain important services in Prato. The transmission lines that will be needed for this are also under repair.

A meeting was held in Florence to establish a program for activating oil-presses in Florence Province. Similar action has been arranged for Siena Province, where the Supply Officer and the E. and M. Officer of 84 C.R.D. are co-operating to organize distribution of the power derived from the small hydro-electric stations on the Arno River, north of Arezzo. A complete survey of oil-presses in the Provinces of Siena and Grosseto has been carried out and arrangements are being made to put into operation as many as possible of these installations.

Constant liaison is being maintained with officers of the Industry and Commerce Sub-Commissions to ensure that everything possible is being done to rehabilitate industrial installations wherever the necessary power is available.

Reconstruction of roads and bridges has been seriously handicapped

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Constant liaison is being maintained with officers of the Industry and Commerce Sub-Commissions to ensure that everything possible is being done to rehabilitate industrial installations wherever the necessary power is available.

(a) Inspection of roads and bridges has been seriously handicapped by shortage of transport. Nevertheless, valuable work has been done, especially in reorganising maintenance of State roads through the appropriate department (late A.A.S.S.) of the Genio Civile.

The volume of work in connection with bridge reconstruction has greatly increased and is still growing. The following bridge projects have been handled during the month:

Bridges on Military highways	36
" on Provincial highways	45
" in City of Florence	4

The Genio Civile officials in each Province were instructed to prepare maps showing all damaged bridges. Four of the desired maps have been received showing, so far, a total of 1,362 bridges that require reconstruction or major repairs. Demolitions in this area were on a very extensive scale and it is emphasized that a large bridge reconstruction program must be anticipated.

(e) Removal of debris, and demolition of dangerous buildings, effected during the month, cost approximately 14 million lire. These operations were carried out over a wide area, but there is still much work to be done.

(f) Arrangements are being made to embark upon a comprehensive survey of the Housing problem as soon as conditions permit. It is evident that local authorities will require much assistance with this problem, especially in the forward areas.

(g) Of public works in general it is reported that the highest priority has been given to flood control schemes, because of the advanced season of the year and the consequent anticipation of highwater in the basins of the rivers Arno, Serchio and Ombrone.

(h) Public works projects totalling over 76 million lire in value are at present in hand. These include debris removal, demolition, water supply, sewerage, canals, land-drainage, flood control, State and public buildings, hospitals, schools, etc.

(i) Close liaison has been maintained with the Education, Public Health and other specialised Departments of A.M.S., Toscana Region, and it has been agreed that no project concerning a specialised department shall be approved without the concurrence of the specialist officers concerned.

(j) The Regional Engineer reports that all officials of the Genio Civile in his Region are working well and are giving their full co-operation.

(k) The Regional Engineer has expressed considerable anxiety over the general shortage of road transport which, he points out, **108** not only in delayed work, but also insufficiency of supervision both by Military officers and by civilian officials of the Genio Civile and the public utility undertakings.

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34. EMILIA REGION (Regional Engineer: Major W.M. SPANN).

(a) The personnel of this division was engaged in assisting 5th and 8th Army AMG Headquarters, and in various duties in the Army area, in cooperation with provincial teams, as advances were made. On the 5th Army side, a conference was held with the C.R.E. regarding maintenance of roads in 13th Corps Area, and assist was rendered to the city of Pistoia with its water and lighting. On the 8th Army side, the work covered general assistance on lighting, water, and operations in connection with flour mills.

(b) Maintenance and reconstruction work on all highways at this time comes under Army Engineers and CRH's. The need for Bailey bridges from roads not now required for military purposes will necessitate immediate work in Forlì Province on reconstruction of bridges or construction of diversions. Plans are being made for this work. Heavy rains are expected to render the task more difficult. Attention is also being given to damage done to roads and bridges in San Marino.

(c) On the 5th Army front the City of Pistoia was provided with 3000 cubic metres of water per day by making repairs to damaged aqueducts. An additional 1,000 cubic metres will be provided by repairs to pipe lines now in progress. Materials were supplied by 5th Army and labour was furnished by the Commune. The power plant of S. Marcello was repaired and put into operation by the power company, producing about 700 KW, of which 450 KW was allocated to Pistoia for mills and lighting, the remainder going to military installations in 4th Corps area.

On the 8th Army side the water mains were repaired and pumping station reconstructed to supply water to Riceione, Cattolica and part of the City of Rimini. Diesel engines were obtained and generators set up in the power station at Cattolica to deliver about 110 KVA. Repairs were made to transmission lines over 12 Kilometers to deliver power to the pumping station at Riceione. Three electric pumps are in operation with a capacity of 47 litres per second. The reservoir was used by the enemy as a latrine and is now being cleaned and sterilized. In the meantime water is being delivered direct to the distribution system.

Assistance has been given to AMG 3th Army in obtaining machinery for operating flour mills in the communes of Savignano and Cattolica. Sulphur mines are being investigated at Formignano. Advice was given to the Montecane Commune on its water supply and on the securing of various supplies. Work will shortly be started on the water supply at Rimini.

The area south of Ravenna, including Cervia, has been

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On the 8th Army side the water mains were repaired and pumping station reconstructed to supply water to Riconne, Cattolica and part of the City of Rimini. Diesel engines were obtained and generators set up in the power station at Cattolica to deliver about 110 KVA. Repairs were made to transmission lines over 12 kilometers to deliver power to the pumping station at Riconne. Three electric pumps are in operation with a capacity of 47 litres per second. The reservoir was used by the enemy as a latrine and is now being cleaned and sterilized. In the meantime water is being delivered direct to the distribution system.

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The area south of Ravenna, including Cervia, has been flooded by the destruction of dykes along the Savio River and of gates in canals to the salt works at Cervia. Of the two pumping stations at Cervia one is totally destroyed but the other is in good order. The local commune engineer, with the aid of the local CAO, will immediately start operations to restore conditions north of the city. The area south of the city will drain by gravity to a certain level at low tide, but some areas will be wet until new pumps can be installed. All the power plants so far inspected are destroyed, and power in the area will have to be imported or supplied by local temporary installations until equipment can be secured for rehabilitation.

Damage to buildings varies to a large degree, some places in Rimini being totally destroyed. The area along the Adriatic

is low and in places swampy. Antimalarial measures at present are being handled by the Armed Forces.

(d) The Regional Engineer complains of shortage of transport. He also says that civilian cars are practically useless in the mud and damaged areas.

31. PIEMONTE AND LIGURIA REGION. (Regional Engineer: Lt. Col. C.R. HITCHETT)

No active work has been possible, beyond continued planning. Some officers of the Regional Engineer's staff have been temporarily transferred to render assistance in other Regions.

32. LOMBARDIA REGION. (Regional Engineer: Lt. Col. C.P. BOLICK, R.A.)

There is nothing to report from this Region. The Regional Engineer and his skeleton staff have been temporarily transferred to assist in other Regions.

33. VENEZIA REGION. (Major W. KNIGHT, M.C.)

Precisely similar to the above remarks on Lombardia.

L.A. Penny
L.A. PENNY,
Lt-Colonel, C.E.,
Director.

105

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1724

