

5/5/11/12

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JANUARY 1942

[Part 27]

ORIGINAL

HEADQUARTERS R.A.E.
7 DIVISION



NOTICE OF FOLIO REMOVAL

AWM52 5/5/11/12

Folios 18-19, 22-29, 31-111

The folios to which this notice refers are wholly exempt under the Archives Act 1983, Sections 33(1)(a) and 33(1)(e)(iii), as they contain:

(a) information or matter the disclosure of which under this Act could reasonably be expected to cause damage to the security, defence or international relations of the Commonwealth; or

(e)(iii) information or matter the disclosure of which under this Act would, or could reasonably be expected to endanger the life or physical safety of any person

Stuart Bennington
Curator Official Records

24 January 2019

21/2/41

C13 70

SECRET

AUSTRALIAN IMPERIAL FORCE

HQ RAE 7 DIV
27 Aug 41

CE,
1 AUST CORPS

DEMOLITION SCHEME

Herewith, in duplicate, demolition scheme for area now occupied by 7 Aust Div, being that part of the ALOUITE STATE and LEBANON within the boundaries TURKISH FRONTIER - VALLEY OF ORONTES RIVER - LINE OF LEBANON RANGE - excl MREIJATTE (158208) - incl road MREIJATTE - ALEY - incl MASRA (140211) - incl ANTELIA (137220).

Sketches are appended, except of serials, 2, 8, 15, 16, 37-45

In general, delay of either wheeled or tracked vehicles in excess of 6 to 8 hours cannot be expected of demolitions proposed unless they are defended.

RJHR/VHJ.

Rae Little Capt.
Lt.-Col.,
for CRE, 7 AUST DIV.



SYRIE et LIBAN

1:1,000,000

Road 1st Class ———
 2nd Class - - - - -
 Truck 1st Class ———
 2nd Class - - - - -
 3rd Class - - - - -
 Railway of Damascus ———



SYRIE et LIBAN

1:1000000

Road 1st Class ———
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Station of Direction ●

COPY NO. 4.

SECRET.

CELL AUST CORPS TECHNICAL INSTN NO. 8:

ENGINEER OPERATIONS IN SYRIA, JUN-JUL 1941.

This compilation is intended mainly for information of training establishments both in ME and AUSTRALIA.

Major:
SORE 1 AUST CORPS.

- APPENDIX 1. List of photos.
" 2. Details of bridges.
" 3. Map of operations.

Distribution (special): Copy No.

CRE C Tps Engrs..	1
" 3 Aust Div..	2
" 7 " "	3,4 ✓
" 9 " "	5,6
Engr Tng Bn.	7-11
SME (AIF) (ME)	12-16
GS Engrs AHQ	17
SME (AUST)	18-22
CRE 8 Aust Div..	23
E-in-C, ME	24
CE P & TJ	25
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Copy No 3 circulated round Corps

SECRET.

CE 1 AUST CORPS TECHNICAL INSTN NO. 8.

ENGINEER OPERATIONS SYRIAN CAMPAIGN, JUNE-JULY 41.

SYRIA is boarded by TURKEY on the North, IRAQ on the East and TRANS JORDAN and PALESTINE on the South. In the hands of the Axis Power it would threaten INDIA and the SUEZ CANAL and would be a factor in determining TURKEY'S policy.

Geographically, SYRIA is divided into four longitudinal strips, generally running North and South:-

- (a) the coastal plain, varying in width, up to 10 km.
- (b) the mountain range, forming a solid wall between the sea and the hinterland except for the valleys of the ORONTES, NAHR, EL KEBIR and LITANI.
- (c) the central depression, leads south from ALEPPO past HOMS into the BEKAA valley.
- (d) the eastern plateau and desert areas.

There was one main line of approach into SYRIA from TRANS JORDAN and three from PALESTINE:-

- (a) DERRAA to DAMASCUS.
- (b) NE across the JORDAN river to DAMASCUS.
- (c) N from METULLA through MERDJAYOUN and up the BEKAA valley to ZAHLE, and
- (d) the coast rd to BEYROUTH and TRIPOLI.

By connecting the PALESTINE frontier rd to AITAROUNE, a further rd of approach was available.

These lines were connected by lateral rds:-

METULLA	-	TYR
QOUNEITRA	-	MERDJAYOUN - SAIDA
DAMAS	-	BEYROUTH
HOMS	-	TRIPOLI.

SEQUENCE OF EVENTS.

Serial 1	Preparation of defensive position along the PALESTINE
Period	frontier.
Serial 2	Entering of EXPORTER FORCE into SYRIA
Period	8 Jun - 17 Jun 41.
Serial 3	Assumption of control by 1 Aust Corps of operations
Period	in Western SYRIA. 18 Jun - 12 Jul 41, and inclusion in the order of battle of 6 Div on 19 Jun.

SERIAL 1 PERIOD.

BY CE 1 AUST CORPS.

Our frontier defences were planned, sited and contracts let for their construction by FORCE HQ. In general, they consist of A/Tk ditches across the main rds of the N frontier with their flanks resting on tank proof (or assumed) country and supported by pillboxes. Various bridges and rds were also prepared for demolition and minefields laid.

During the last two weeks, prior to the SYRIAN campaign secs of the 2/14 and 2/15 A Fd Coys and 23 A Corps Fd Pk were engaged in the supervision of the above contracts.

The value of these defence works, which on the main, consisted of zig-zag A/Pk ditches with legs up to 1,000 yds long, and pillboxes at the internal re-entrants is, in my opinion, speculative for the following reasons:- the troops rely on pillboxes to protect them from tanks; the pillboxes are blinded or otherwise put out of action, the tanks advance and another withdrawal commences.

SERIAL 2 PERIOD
8 Jun-17 Jun 41.

BY SORE 1 AUST CORPS.

On 8 Jun EXPORTER FORCE entered SYRIA in three main lines of advance:-

- (a) The Free French Force and 5 Ind Inf Bde on rd DERAADAMASCUS.
- (b) 25 Aust Inf Bde up JORDAN & BEKAA valleys.
- (c) 21 " " " "
- (1) coast rd
- (11) via AITAROUNE & TIBNINE.

These three sectors were divided by the well defined features of JEBEL CHEIKH and of JEBEL BAROUK and JEBEL NIHA.

The engr order of battle of EXPORTER FORCE was:-

RAE 7 Aust Div (less 2/4 & Fd Coy)
2/9 A Fd Coy
2/2 Pnr Bn
CRE NAZARETH with 290 A Tps Coy & 660 Gen Con Coy

2/5 & Fd Coy was under comd 25 Aust Inf Bde & 2/6 Aust Fd Coy under comd 21 Aust Inf Bde.
2/9 Aust A Fd Coy, 25 Aust Fd Pk Coy and
2/2 Pnr Bn were under comd of CRE 7 Aust Div.

The 2/2 Aust Pnr Bn was to construct, as soon as ground was gained, connecting rds as follows:-

- (a) PALESTINE frontier rd to AITAROUNE.
- (b) METULLA NE to QOUNEITRA - MERDJAYOUN rd.
- (c) MERDJAYOUN NE to track to QAROUN.
- (d) MTSUDAT to QOUNEITRA - MERDJAYOUN rd.

CRE NAZARETH with 290 A Tps Coy RE and 660 Gen Con Coy RE became L of C EXPORTER FORCE and were responsible for all engr work north of the PALESTINIAN frontier and for all rd communications north of, and including, ACRE-SAFAD-ROSH PINNA rd, up to rear divisional boundary.

In anticipation of certain needs, additional stores and transport were secured and 2/5 and 2/6 Fd Coys each carried beyond normal scale, 1 - 3 ton truck of army track, 1 of wiring stores, 1 of tubular scaffolding and 12 ft Inf bridges and 1 of pontoon superstructure. 25 Fd Pk Coy carried six improvised RSJ bridges.

GENERAL: The advance on the right was not delayed appreciably by enemy demolitions, but in the centre and left the enemy carried out demolitions on the rd to MERDJAYOUN and at TIBNINE and collapsed the coast rd at ISKANDAROUN. The bridges at BANIAS and LITANI crossings at BEAUFORT and QASMIYE were destroyed. The replacement of the two bridges at BANIAS was delayed at this stage as the gaps provided an obstacle against any flank attack from the direction of QOUNEITRA.

Extensive use of anti tk mines was made by the enemy, but they were badly concealed and were easily removed by engr dets that accompanied the forward tps.

It was further demonstrated in this campaign that an obstacle has little delay value unless covered by fire.

Demolitions of small bridges up to 20' long were demolished in such a manner that the resultant gap was up to twice the original length. Special attention was invariably paid to abutments.

25 Aust Inf Bde Front.

BY CRE 7 AUST DIV.

On the night 7/8 Jun an engr party, with a small inf covering force endeavoured to reach the bridge at BANIAS, known to be mined, with the intention of over-powering the guard and withdrawing the charges. The attempt was unsuccessful, the party being unable to approach the bridge.

A second party gained possession of the two bridges at BEAUFORT over the LITANI river and defused the charges in one.

An enemy attack forced the party to withdraw before the charges were withdrawn. Later, on 11 Jun, recce disclosed a 100 ft crater on the rd to the bridge and that the two bridges had been demolished.

On the night 11/12 Jun the crater was repaired by 2/5 Fd Coy and B Coy, 2/2 Pnr Bn sufficiently to pass traffic. Engr eqpt and bridge stores were got through and a bridge and approach rds were constructed by 1600 hrs 12 Jun, at a site between the two bridges. A large rock in midstream permitted the use of two spans each approx 30 ft long using 4 - 12" x 5" RSJs in each. The crater was subsequently filled in and rd restored with the aid of a bulldozer obtained from IRAQ Petroleum Coy.

On 14 Jun 25 Inf Bde advanced via the rd JERME-JEZZINE. This proved to be a rough steep one way mountain track and 2/2 Pnr Bn carried out improvements to the rd by providing passing places and widening corners.

The following day 15 Jun the 2/2 Pnr Bn was given the role of inf and did not engage further in any engr work.

The development of the French counter attack in MERDJAYOUN area led to the extensive preparation of minefields and rd craters and bridges were prepared for demolitions.

21 Aust Inf Bde Front:

BY CRE 7 AUST DIV.

On the night 7/8 Jun an engr party, with Inf endeavoured to locate and withdraw the mine-charges known to have been placed in the coast rd near ISKANDAROUN. The charge was not located and on 8 Jun a crater, 100 ft long by 30 ft deep was blown on the cliff side. This crater was filled by blowing down further portions of the cliff and with the addition of army track the rd was open to traffic in 3 hrs time. Work was taken over the following day by 660 Gen Con Coy and the original width of the rd was eventually restored.

- 4 -

On 9 Jun the bde had reached QASMIYE and found the bridge over the LITANI river had been blown.

FBE was brought up during the night 9/10 Jun and a floating bridge, 100 ft long, was built about $\frac{1}{2}$ mile up-stream in a current estimated at about 5 knots. Work was completed in 3 hrs. *by 2/6 Aust Fd Coy*

The following night a SBG bridge was put across about 50 yds down-stream from the original crossing. The gap was 77' but was reduced to 62' by building out abutments. Thus, crossings for "up" and "down" traffic were provided. *by 2/6 Aust Fd Coy*

On 11 Jun the 290 A Tps Coy bridged the river by pontoon trestles, close to the SBG bridge, and a class 24 bridge was thus now available. The FBE was then removed.

At TIBNINE a rd crater, 80' x 15' deep, held up traffic for four hrs until a deviation on a difficult side slope was made. *by 2/6 Aust Fd Coy*

Two craters were also repaired on BANIAS-MERDJAYOUN and one on MERDJAYOUN - HASBAYA rds.

BY SORE 1 AUST CORPS.

One sec 290 A Tps Coy took over the water supply at DERRAA and various rds and bridges in the rear area were prepared for cratering and demolition in the general defence scheme.

On 17 Jun the Force had reached the general line: KISSUE (incl), MEZZE (excl), MERDJAYOUN (excl), JESSINE (incl), SAIDA (incl).

SERIAL 3 PERIOD.

18 Jun - 12 Jul.

BY SORE 1 AUST CORPS.

On 18 Jun 1 Aust Corps took over control of ops in Western SYRIA.

The Free French and 5 Ind Inf Bde were astride the DERRAA-DAMAS rd and south of DAMAS preparing at attack on that town.

7 Aust Div was disposed in the MERDJAYOUN (incl) - coast area with a mixed bde (BERRYMAN FORCE, 2/9 A Fd Coy in support) at MERDJAYOUN; 25 Inf Bde (less two bns) and one bn of 21 Inf Bde at JEZZINE; and 21 Inf Bde less one bn, at SAIDA. *2/5 Aust Fd Coy under comd 25 Inf Bde & 2/6 under comd 21 Inf Bde*

16 Inf Bde was in ROSH PINNA - QOUNEITRA area protecting L of C, but was later incorporated in 6 Div.

BY CE 1 AUST CORPS.

Engr organisation on taking over was that CRE EXPORTER was in charge of forward area supported by CRE DERRAA (Lt-Col WAVISH RE) and CRE NAZARETH (Lt-Col COTTON RE), both behind rear Div boundary and north of P & TJ boundary.

On 21 Jun DAMAS surrendered and on 27 Jun CRE DERRAA established his HQ at DAMAS. It became evident that little work existed in the DERRAA - DAMAS sector and in the adv of the 5 Ind Bde the rd DERRAA-DAMAS had been completely broken up by heavy traffic.

CE 1 Aust Corps decided that the two main jobs for CRE DERRAA (or 85 Base Sub-area) and CRE NAZARETH (or 84 Base sub-area) were the maintenance and improvement of JISR BENETT JACOB-DAMAS rd and the coast rd respectively. CRE DERRAA was established with his HQ at QOUNEITRA, and he and CRE NAZARETH became CRE Corps Right and Left Sectors respectively. In addition, as the advance progressed, CRE Left Sector was made responsible for the QOUNEITRA-SAIDA rd.

BY CRE 6 DIV.

In mid Jun HQ 6 Div was in the Western Desert with one Inf Bde fighting near SOLLUM and two in CRETE. RE Units were 2nd Fd Coy at BAGUSH, 12 Fd Coy and 141 Fd Park Sqn fighting near SOLLUM and 54th Fd Coy on defences of ALEXANDRIA. When HQ 6 Div arrived in front of DAMASCUS on Jun 21, it took over operational direction of:-

- (a) Free French with no Sappers.
- (b) 16th Inf Bde who were joined on June 22nd by 2/15 A Fd Coy RAE.
- (c) 5th Ind Inf Bde with 18th Fd Coy S & M, just pulling out to rest after very heavy fighting and casualties.

EVENTS: 24 Jun. HQ 6 Div moved into DAMASCUS. 30 Jun 23rd Inf Bde with 2 Fd Coy RE arrived from EGYPT and took over MERDJAYOUN sector; later to advance up valley west of MT HERMON. 10 Jul 16 Inf Bde and 2/15 A Fd Coy RAE captured the high ground on the BEIRUT rd west of DAMASCUS. Jul 12/13 Armistice. Jul 13 and 14, the 14th Inf Bde arrived from EGYPT with 12th Fd Coy RE and took over from 16 Inf Bde Group after their fight to take part in the general advance on 15th.

It will be seen that 6 Div reformed itself in SYRIA during the battle for DAMASCUS on the nucleus of its old 16th Inf Bde. No Fd Pk Coy RE was received until two weeks after the Armistice and its absence would have been very keenly felt had there been a fighting advance.

The principal lessons are:-

(a) AIR RECCE: RE require air photos of bridges and defiles in order to decide:-

- (i) Where detours will be possible.
- (ii) What bridging material to commit to any specified column.
- (iii) In consultation with Bde HQ where it should travel in the column.

These air photos are doubly necessary in a country with poor maps and narrow rds; they were demanded for the advance from MERDJAYOUN up the LITANI valley on several rds and were not forthcoming.

(b) A/TK MINEFIELDS: Are apt to be a two edged weapon in spite of all precautions. They must be marked for our own troops, but be inconspicuous to enemy mobile patrols. Method of marking used has a partially filled sandbag on top of small angle iron picket every twenty-five yards, coupled with barbed wire according to circumstances. Mines were sometimes dug completely in for surprise, but on lines of advance to be used by our troops they were generally uncovered to ensure rapid and certain lifting;

; where uncovered as in rd blocks, etc., they are pretty certain to be spotted by enemy air or active ground patrols.

All mines must be laid in closest co-operation with Inf Bdes and Units, and great care taken to inform all new units on

relief. Actually in these operations, mobile as they were, surprisingly few incidents occurred.

(c) In the case of all three Fd Coys transport to complete the establishment was thrown at them within 48 hrs of movement. This was unavoidable in the circumstances, but it must be realised that the immediate result is bound to be bad march discipline in convoy, it is especially hard on inexperienced motor cyclists.

The engr work by 2/15 A Fd Coy during the advance through QATANA to the DAMASCUS position consisted of:-

- (a) Track improvement.
- (b) Clearing of rd obstacles.
- (c) Establishment of water points.
- (d) Bomb disposal.

During the occupation of the DAMASCUS position the engr work consisted of the following in order of importance:-

- (a) Fwd engr recce.
- (b) Construction of rd blocks.
- (c) Laying minefields.
- (d) Establishment of water points.
- (e) Improvement and sign posting tracks.
- (f) Supply engr stores.
- (g) Construction Bde and En HQ and arty OPs and cmd posts.
- (h) Mine demolition and bomb disposal.

Although no major engr work was necessary the coy gained excellent experience in co-operation with the bde in general engr assistance.

Engr work by 2 Fd Coy RE comprised:-

(1) Preparatory. Large quantities bridging material (2x64' SBG, 4 x 23' and 5 x 20' stock plans, 50 steel cribs) assembled owing to ignorance of likely obstacles due to:-

- (i) Inadequate air reports.
- (ii) Poor Maps.

(2) Operations:

Defensive minefields and demolitions prepared.
Communications improved.
Salvage of RE material from FORT MERDJAYOUN and neighbourhood.
Clearing rd blocks.

BY SORE 1 AUST CORPS.

In the centre sector strong opposition was encountered and it was not until 24 Jun that the French were forced to withdraw from MERDJAYOUN to HASBAYA.

By 30 Jun 7 Aust Div were concentrated in the coastal area, 23 Inf Bde relieving units of that div in the centre sector, 2/9 Fd Coy being allotted in support of 17 Aust Inf Bde on the coastal sector.

The position was then 6 Div responsible for right and centre sectors and 7 Aust Div for coastal sector including JEZZINE area.

In the centre and coast sectors there was little change, engr units being employed mainly on development of rds and tracks and provision of protective obstacles and minefields.

Preparations were being made for the attack on DAMOUR as a first objective to the capture of BEYROUTH.

The enemy positions about DAMOUR were fronted by the DAMOUR river, which runs in a generally north-westerly direction to the sea and lies about $1\frac{1}{2}$ miles south of the DAMOUR village.

Except for a distance of about $1\frac{1}{2}$ miles from its mouth the river runs through a deep almost precipitous valley.

The coast rd crosses by a two arch stone bridge (each span 100 ft) and the rd from DAMOUR to BEIT ED DINE runs east along the north bank, crossing the river about 2 miles from the sea.

Both bridges had been destroyed.

The general plan for the advance on BEYROUTH by 7 Aust Div was:-

21 Inf Bde to force the crossings over DAMOUR river and to secure an EW line just south of DAMOUR.

25 Inf Bde to move from JEZZINE and RHARIFE and capture BEIT ED DINE.

17 Inf Bde to pass through the 21 Inf Bde and exploit success towards BEYROUTH.

BY CRE 7 AUST DIV.

On the nights prior to 6 Jul engr personnel accompanied Inf patrols and located, in exceedingly difficult country, tracks to a crossing over DAMOUR river. On the morning of the attack they acted as guides.

In the JEZZINE area, a bridge on the rd JEZZINE-BEIT ED DINE was found to have been demolished. An SBG bridge was put across on the night 6/7 Jul and arrangements made to bring forward a RSJ improvised bridge to replace the SBG bridge. On 9 Jul it was found that a bridge further north had also been destroyed, so the improvised bridge was diverted to that gap and a two span bridge of RSJs was built on night 10/11 on the site of the SBG.

On the morning 6 Jul an attack was launched.

On night 6/7 Jul an FBE trestle bridge was thrown across the DAMOUR river under shell fire in $2\frac{1}{2}$ hrs, including long approaches, below the coast rd crossing. The following day a second bridge using RSJs with a steel crib pier in the stream, was erected.

On the night 7/8 Jul a difficult detour was located at the site of the second demolished bridge (about 2 miles from the sea) and a track approx 500 yds long was constructed in 5 hrs enabling A/Tk guns to be moved across, to protect right flank from attack from the direction of BEIT ED DINE.

The attack was successful, 2/27 Bn crossing the river and turning the left flank of the defences. The following day 2/14 Bn passed through 2/27 Bn and enabling 17 Inf Bde to secure a line north of DAMOUR and on 9 Jul the town was captured.

On 12 Jul the enemy sought an armistice.

BY CE 1 AUST CORPS.

The major task of the Corps units, as mentioned above, was the maintenance of the two main arteries to the front, viz:- the ROSE PINNA-QOUNEITRA DAMASCUS and the coast rds and main lateral rd QOUNEITRA-SAIDA.

The rd DAMASCUS-SALSSAA is bitumen surfaced and apart from shell-holes required no maintenance; from SAASSAA to QOUNEITRA a 6 metre macadam rd existed, and from QOUNEITRA to frontier the macadam rd narrowed to 4 metres.

This latter section was being rapidly pounded to destruction by MT, but CRE Right Sector, with 2 secs 290 A Tps Coy and native labour, between 25 Jun and armistice, was able, despite continuous traffic interruption, to re-construct and surface with bitumen, 27 km of rd in 18 days, a very creditable and useful performance. The details of CRE Right Sector giving information relating to plant and materials are not yet to hand.

In the Left Sector the main coast rd, being bitumen, surfaced did not go to pieces with the same rapidity as the FRONTIER-QOUNEITRA rd, but nevertheless, deterioration was becoming evident. By 12 Jul maintenance had over-taken deterioration and, although in places lumpy, the rd was in first class order. During this period 660 Gen Con Coy re-constructed a new two-way bridge across the LITANI river just north of old site.

This was a five span timber trestle bridge with RSJ rd bearers. It and the approaches took 7 days to construct. Its construction by Jul 3 enabled the two service bridges to be available for operations forward.

In the same period 290 A Tps Coy assisted by 2/9 A Fd Coy re-built BANIAS bridges, and constructed new rd connecting from the QOUNEITRA-SAIDA rd, near BANIAS to the TIBERIAS rd, near TEL HAI thus, by passing MERDJAYOUN. This was completed by 1800 hrs 30 Jun to enable concentration of troops in Left Sector. At the time of the armistice 290 A Tps Coy was working on main DAMOUR bridge.

This bridge consisted of two main masonry arch spans, each 100', the southerly span being demolished.

It was decided that remaining span would be stable by adding about 80 tons of sand bagging and concrete over centre pier and that the demolished span be reconstructed in steel and timber. Stock of RSJs, at this stage, were low, but sufficient material was obtained to make a one-way bridge. As the old bridge was 16' wide and unsuitable for two-way military traffic, this did not matter.

The design provides for the subsequent replacement of the old arch in concrete and widening to 20' throughout without interruption to traffic.

RE STORES ORGANISATION:

A stores officer as liaison officer between HQ P & TJ and 1 Aust Corps was attached to CE at the latter HQ.

Stores were drawn from engr stores base Depot at HAIFA and delivered to dumps at DERRAA, TIBERIAS, KAIFR GILADI and EL BASSA. These were under control of CE P & TJ, who was responsible for stocking the dumps. Demands could be made on these by CsRE and Coy Comdrs of engr units.

At the latter stages of the campaign the two main dumps were maintained at QADAM and EL BASSA, and a main dump for bitumen at QOUNEITRA. An average of 30 lorries per day was required for this work.

SECTION 1 - FROM NARRATIVE PAGE 3.

APPENDIX 1.

1.

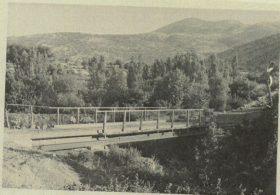


On the night 7/8 Jun an attempt was made by an engr party to remove the charge from the arch bridge at BANIAS, but without success.

This bridge and another further on. were demolished.



2.



3.

These bridges were constructed by 290 A Tps Coy RE assisted by 2/9 A Fd Coy RAE, replacing the destroyed bridge at BANIAS.



4.



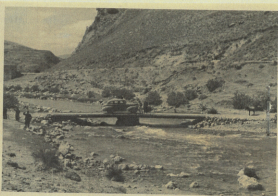
5.

On night 7/8 Jun an engr party gained possession of one of these bridges over the LITANI river at BEAUFORT and defused the charges. Before the charges were withdrawn, the party was forced to withdraw and the two bridges were demolished shortly afterwards. Completeness of demolition can be seen in each photograph. The bridge replacing



6.

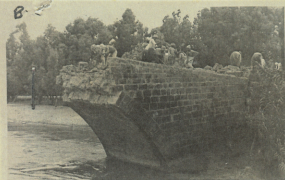
Approaching river crossings on rd from MERDJAYOUN, a crater was blown causing considerable inconvenience. Sappers provided emergency crossing by ramping down and eventually re-built road as shown in photo.



7.

On 12 Jun this bridge was constructed by 2/5 Pd Coy using a large rock as a central pier, replacing the LITANI river crossing at BEAUFORT. Very little work was required for the levelling and with good natural approaches a sturdy crossing was effected.

SECTION 2 - FROM NARRATIVE PAGE 4.



8.

9.

On night 9/10 Jun, coast rd over LITANI River was found to be blown. Photographs shows thoroughness of demolition and indicates deep water.



10.

11.

On night 9-10 Jun, FBE was brought up and launched. A good deal of work was involved in making a suitable approach. On the night 10-11 Jun, SBG bridge was put across 50 yds down-stream from original crossing.

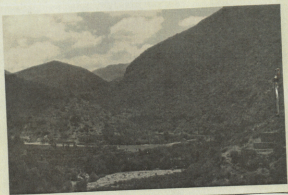


12.

13.

To order to free the bridging equipment used over the LITANI

SECTION 3 - FROM NARRATIVE PAGE 7.



14.

On the nights prior to attack on DAMOUR engr personnel located, in exceedingly difficult country, tracks to a crossing over DAMOUR River.

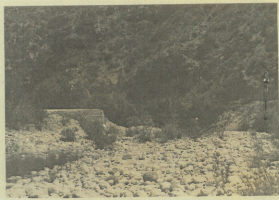


15.



16.

The DAMOUR river was crossed by two bridges, both of which had been demolished. The photograph on the left shows where one arch had been blown out and later replaced by a steel and timber span with two steel trestles. Note in photo 16 commencement of detour by small house. This detour was used instead of bridging. See also photos 20, 21 and 22.



17.



18.



19.

On night 6/7 Jul an FBE trestle bridge (left) was built about 300 yds down stream from demolished bridge (photo 15) under shell fire in 2½ hrs enabling supporting weapons to cross. The following day a second bridge, using RSJs with a central steel pier, was constructed a few yards further up stream.



20.

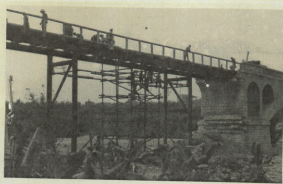


21.



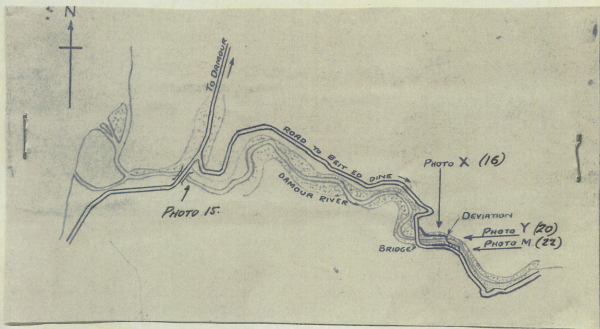
22.

A difficult detour was located on the night 7/8 Jul enabling A/Tk guns to be brought across the DAMOUR river to protect right flank from attack from direction of BEIT ED DINE.



23.

More detailed view showing construction of steel & timber span replacing the masonry arch over DAMOUR river. This was not commenced until after the cessation of hostilities.



SEC. 3. LOCATION PLAN.

1.



On the night 7/8 Jun an attempt was made by an engr party to remove the charge from the arch bridge at BANIAS, but without success.

This bridge and another further on. were demolished.



2.



3.

These bridges were constructed by 290 A Tps Coy RE assisted by 2/9 A Fd Coy RAE, replacing the destroyed bridge at BANIAS.



4.



5.

On night 7/8 Jun an engr party gained possession of one of these bridges over the LITANI river at BEAUFORT and defused the charges. Before the charges were withdrawn, the party was forced to withdraw and the two bridges were demolished shortly afterwards. Completeness of demolition can be seen in each photograph. The bridge replacing the demolished bridge, shown in the right hand photograph, can be seen in the middle distance.



6.

Approaching river crossings on rd from MERDJAYOUN, a crater was blown causing considerable inconvenience. Sappers provided emergency crossing by ramping down and eventually re-built road as shown in photo.



7.

On 12 Jun this bridge was constructed by 2/5 Fd Coy using a large rock as a central pier, replacing the LITANI river crossing at BEAUFORT. Very little work was required for the levelling and with good natural approaches a sturdy crossing was effected.



8. On night 9/10 Jun, coast rd over LITANI River was found to be blown. Photographs shows thoroughness of demolition and indicates deep water.



10. On night 9-10 Jun, FBE was brought up and launched. A good deal of work was involved in making a suitable approach. On the night 10-11 Jun, SBG bridge was put across 50 yds down-stream from original crossing.



12. In order to free the bridging equipment used over the LITANI River, 290 A Tps Coy constructed a semi-permanent bridge, class 24, in the left hand photograph. The abutment of the old bridge can be seen.

5
SECTION 3 - FROM NARRATIVE PAGE 7.



14.

On the nights prior to attack on DAMOUR engr personnel located, in exceedingly difficult country, tracks to a crossing over DAMOUR River.



15.



16.

The DAMOUR river was crossed by two bridges, both of which had been demolished. The photograph on the left shows where one arch had been blown out and later replaced by a steel and timber span with two steel trestles. Note in photo 16 commencement of detour by small house. This detour was used instead of bridging. See also photos 20, 21 and 22.



17.

Photo taken from bed of creek, showing extent of gap and ruggedness of country, following on photo 16.





18.



19.

On night 6/7 Jul an FBE trestle bridge (left) was built about 300 yds down stream from demolished bridge (photo 15) under shell fire in 2½ hrs enabling supporting weapons to cross. The following day a second bridge, using RSJs with a central steel pier, was constructed a few yards further up stream.



20.

21.



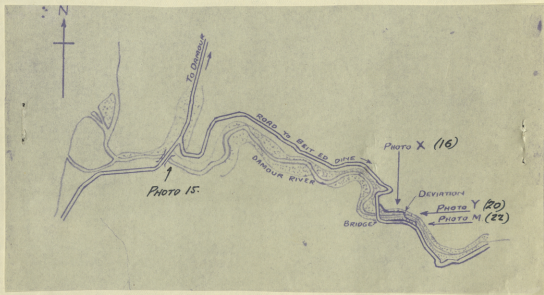
22.

A difficult detour was located on the night 7/8 Jul enabling A/Tk guns to be brought across the DAMOUR river to protect right flank from attack from direction of BEIT ED DINE.



23.

More detailed view showing construction of steel & timber span replacing the masonry arch over DAMOUR river. This was not commenced until after the cessation of hostilities.



SEC. 3. LOCATION PLAN

APPENDIX 2

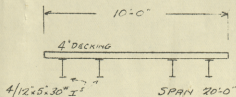


PHOTO 2

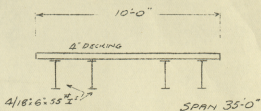


PHOTO 3

PHOTO 7

BRIDGE SHOWN IS OF SIMILAR CONSTRUCT.
TO THAT IN PHOTO 2, BUT CONSISTS OF
2 x 30'-0" SPANS.

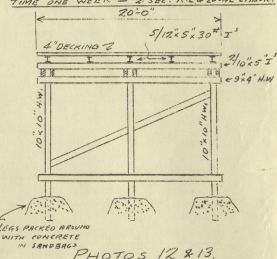
PHOTO 18

STANDARD BRIDGING.

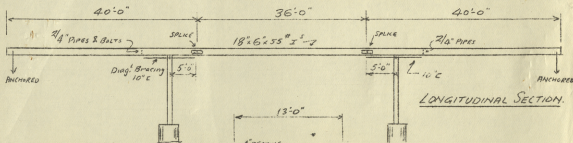
PHOTO 19

BRIDGE SAME AS DESCRIBED FOR PHOTO 7
EXCEPT IN THIS INSTANCE STEEL CRIB PIER
WAS USED AS CENTER SUPPORT.

5 x 20'-0" SPANS & APPROACHES.
TIME ONE WEEK - 2 SEC. R.E. & LOCAL LABOR.



PHOTOS 12 & 13.

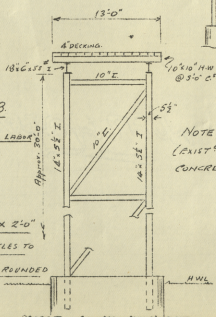


LONGITUDINAL SECTION.

PHOTOS 15 & 23

TIME ONE WEEK - 2 SEC. R.E. &
LOCAL LABOR

CONCRETE FOUND^N 13'-0" ACROSS x 2'-0"
THICK WERE BUILT AROUND TRETTLES TO
HEIGHT ABOVE H.W.L - ENDS ROUNDED



NOTE: ARCH OVER CENTER PIER
(EXIST^G WORK) WAS FILLED WITH
CONCRETE AND SANDBAGS TO STABILISE
REMAINING ARCH.

EXHIBIT
2-18-41

