



# BOARD OF INQUIRY REPORT

The Board is to investigate the circumstances surrounding the deaths of 24848863 Cpl Steve Allbutt QRL and 25119984 Tpr David Clarke QRL and the injuries occasioned to [REDACTED] LCpl [REDACTED] QRL and [REDACTED] Tpr [REDACTED] QRL at Al Basra, Iraq on the 25<sup>th</sup> March 2003.

[REDACTED]

**SUMMARY SHEET**

**Formation** HQ 7 Armd Bde

**Comd** Brigadier

**Type of inquiry:** Board of Inquiry

**Convened by:** Major General [REDACTED] CBE General Officer Commanding Headquarters 1<sup>st</sup> (United Kingdom) Armoured Division

**Terms of reference of the inquiry:** To investigate the circumstances surrounding the deaths of 24848863 Cpl Steve Allbutt QRL and 25119984 Tpr David Clarke QRL and the injuries occasioned to [REDACTED] LCpl [REDACTED] [REDACTED] QRL and [REDACTED] Tpr [REDACTED] QRL at Al Basra, Iraq

**Date of occurrence:** 25<sup>th</sup> March 2003

**Date of assembly of inquiry:** 17<sup>th</sup> May 2004

**Date inquiry completed:** 23<sup>rd</sup> July 2004

**Opinion of inquiry:** The opinion of the Board is that the deaths of Cpl Allbutt and Tpr Clarke and the injuries to LCpl [REDACTED] and Tpr [REDACTED] were caused by two HESH rounds fired from C/S I10 (2 RTR), one of which struck their CR2. The Board examined several factors. Firstly, the passage of information regarding inter Battlegroup boundaries, locations of friendly forces, and the existence of a key tactical feature. Secondly, command and control issues including co-ordination of battlespace, co-operation and unity of effort. Thirdly, Combat Identification was examined which included issues of situational awareness, target identification and procedures for the handover of a tactical position, including briefings, allocation of arcs of fire and the designation of reference points. Shortcomings in these areas contributed, ultimately, to misunderstandings about the correct arcs and enemy threat. These misunderstandings were not identified and rectified, which led to an erroneous appreciation of the situation. The effect was that C/S I10 (2 RTR) considered that the targets that he had observed were legitimate and so they were engaged. Although there should be improvements to the technical solutions to Combat ID to prevent fratricide, procedural measures and low level tactical drills should be reinforced in training.

[REDACTED]

# RECORD OF PROCEEDINGS

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# **FLAG A**

**RECORD OF PROCEEDINGS**



[REDACTED]

## RECORD OF PROCEEDINGS

of a Board of Inquiry

Assembled at AFV Gunnery School, Lulworth, Wareham, Dorset BH20 5QF

on the 17<sup>th</sup> day of May 2004

by order of Major General [REDACTED] CBE GOC 1(UK) Armoured Division

for the purpose of investigating the circumstances surrounding the deaths of 24848863 Cpl

Steve Allbutt QRL and 25119984 Tpr David Clarke QRL and the injuries occasioned to

[REDACTED] LCpl [REDACTED] QRL and [REDACTED] Tpr [REDACTED] QRL at Al Basra,

Iraq on the 25<sup>th</sup> March 2003.

PRESIDENT Lieutenant Colonel [REDACTED] 9/12L

MEMBERS Major [REDACTED] RDG  
Warrant Officer Class 2 [REDACTED] RDG

The following persons were in attendance throughout part of the proceedings in accordance with Rule 11 of the [Board of Inquiry (Army) Rules, 1956:-

[REDACTED]	Maj [REDACTED]	BW
[REDACTED]	Capt [REDACTED]	RTR
[REDACTED]	LCpl [REDACTED]	RTR

They were unrepresented.

The board, having assembled pursuant to the convening order attached at Pages 5 - 10 (Flag B) proceeded to record evidence on oath in accordance with the transcript attached hereto at Flag D. (*or as the case May be*)

[REDACTED]

The Evidence presented to the board, which is shown at Flags E – M, was done under oath as follows:

<u>Flag</u>		<u>Presented by</u>	<u>Marked as Exhibit</u>	<u>Supporting statement at</u>
<b><u>PROCEEDINGS</u></b>				
A	Record of proceedings	The Board	N/A	N/A
B	Convening Order.	The President	N/A	N/A
C	Findings of the Board. Side Flag 1. Key Personalities Side Flag 2. Sequence of Events	The Board	N/A	Side Flag 1 Side Flag 2
D	Witness Statements and Transcripts taken under oath.	Individual Witnesses	N/A	N/A
<b><u>Exhibits</u></b>				
E	Extract from 7 Armd Bde Trace Dated 23 Mar 03 (RMP Exhibit MJLL/1)	Sgt [REDACTED] - RMP	AC 1	
F	Extract from Maps showing Location and Grids of Incident – (1:100000,1:50000,1:150000). (RMP Exhibit GLCR/1, GLCR/2, GLCR/3)	Sgt [REDACTED] - RMP	AC 2 – 4	
G	Photographic Supplement – Area of Bridge 4. (RMP Exhibit GLCR/3)	Sgt [REDACTED] - RMP	AC 5	
H	N11/N12 Crew Positions on Impact. (RMP Exhibit DT/2)	Sgt [REDACTED] - RMP	AC 6	
I	HESH Danger Template.		AC 7	
J	Photographic Supplement – CR 2 Fitted with CIP's. (RMP Exhibit JRK/13)	Sgt [REDACTED] - RMP	AC 8	
K	Witness Statements taken by RMP.	Sgt [REDACTED] - RMP	AC 9 – 95	
L	RMP Exhibits list	Sgt [REDACTED] - RMP	AC 96	
M	Additional Exhibits	Individual Witnesses & The Board	AC 97	

The finding \*[and opinion] of the board are attached at Pages (Flag C).

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# FLAG B

CONVENING ORDER

[REDACTED]

CONVENING ORDER FOR A BOARD OF INQUIRY

BY ORDER OF

MAJOR GENERAL [REDACTED] CBE GENERAL OFFICER COMMANDING

HEADQUARTERS 1<sup>ST</sup> (UNITED KINGDOM) ARMOURED DIVISION

1. A Board of Inquiry composed as under is to assemble at the Divisional Conference Centre, Wentworth Barracks, Herford at 1100 hours on the 17<sup>th</sup> day of May 04. The Board is to investigate the circumstances surrounding the deaths of 24848863 Cpl Steve Allbutt QRL and 25119984 Tpr David Clarke QRL and the injuries occasioned to [REDACTED] LCpl [REDACTED] QRL and [REDACTED] Tpr [REDACTED] QRL at Al Basra, Iraq on the 25<sup>th</sup> March 2003.

President	Lt Col [REDACTED]	9/12L
Member	Maj J [REDACTED]	RDG
Member	WO2 A [REDACTED]	RDG

2. The Inquiry is to investigate all the circumstances surrounding the death of 24848863 Cpl SJ Allbutt and 25119984 Tpr D Clarke and the serious injuries occasioned to [REDACTED] LCpl [REDACTED] and [REDACTED] Tpr [REDACTED] and record all the relevant evidence.

3. Any person to whom Rule 11 of the Board of Inquiry (Army) Rules 1956 applies and who, in the opinion of the President, may be affected by the finding of Inquiry is to be given the opportunity of being present and represented in accordance with Section 135(4) of the Army Act 1955.

4. If it appears to the Board at any time during the inquiry that any person may have committed an offence against Military Law, including a civil offence contrary to Section 70 of the Army Act 1955, the President is to adjourn the inquiry and seek legal advice.

5. His inquiry and any subsequently appended comments by the Authority or Superior Commander are not explicitly to attribute blame or negligence.

6. The Inquiry is to express its opinion with regard to any material conflict in the evidence, which may arise and give reasons for reaching that opinion.

7. The Inquiry is to report on the following matters:

a. What were the events leading up to and including the engagement of CR2 Reg No DS 59 AA by CR2 Reg No DR 31 AA on the 25<sup>th</sup> March 2003. (A precise chronology should be produced).

b. Training of the tank crew, including:

- i. What training was undertaken by members of the tank crew?
  - ii. Had the tank crew completed their training prior to OP TELIC?
  - iii. Was any additional training undertaken prior to OP TELIC?
- [REDACTED]



[REDACTED]

- iv. Was the training adequate?
- c. Boundaries, including:
- i. How are boundaries plotted?
  - ii. What were the Brigade, Battlegroup (BG), Company (Coy) and Squadron (Sqn) boundaries on the 24<sup>th</sup> March 2003?
  - iii. Were there any deficiencies?
  - iv. To whom were the boundaries (all) communicated and were there any changes to the boundaries on the 24<sup>th</sup> March 2003?
  - v. If there were changes to the boundaries to whom and how were they communicated?
  - vi. What boundaries were briefed in the handover from Z Coy 1 RRF to 1BW BG on the 24<sup>th</sup> March 2003?
  - vii. What boundaries were communicated to Egypt Sqn 2 RTR?
  - viii. Why was there confusion over boundaries?
  - ix. Why was the boundary crossed (if applicable)?
  - x. Was the mapping adequate and did it play any part in this incident?
  - xi. What can be done to prevent a re-occurrence?
  - xii. All map traces to be attached to the record.
- d. Arcs of fire, including:
- i. What is the procedure for setting arcs of fire? Is there a set procedure?
  - ii. What arcs of fire were set by/for c/s 10 (2RTR) on the 24<sup>th</sup> March 2003?
  - iii. Were these communicated (if applicable), understood and appropriate?
  - iv. Why was the engagement outside of arc of fire (if applicable)?
  - v. What can be done to prevent a re-occurrence?
  - vi. All orders relating to arcs of fire to be attached to the record.
- e. Friendly forces/Fire procedure, including:
- i. What is the procedure for notifying others of position of friendly forces in battlespace?
  - ii. To whom and how was the position of c/s N11 and N12 (QRL) communicated?
  - iii. Why did c/s 131 brief that there were no friendly forces within 3/5 kms of Egypt Sqn position (if applicable)?
  - iv. Why was position of c/s N11 and N12 (QRL) not known to all 1BW BG?
  - v. What are the controls for opening fire?
  - vi. What permission was sought to open fire by c/s 10 (2 RTR) on the 24<sup>th</sup> March 2003?
  - vii. Why was permission granted?
  - viii. What can be done to prevent a re-occurrence?
  - ix. All logs to be attached to the record.

[REDACTED]

- ████████████████████
- f. Identification, including;
- i. What precautions had been taken to avoid friendly fire?
  - ii. What testing had been undertaken of CIPS and TIPS?
  - iii. What training had the tank crews undertaken with CIPS and TIPS?
  - iv. Why were the CIPS and TIPS not recognised?
  - v. Was the Thermal Imaging System adequate (TOGS)?
  - vi. What training had been undertaken on vehicle recognition? Was this adequate?
  - vii. What can be done to prevent a re-occurrence?
- g. Damage to c/s N11 and N12 (QRL), including;
- i. What damage was caused to c/s N12 (QRL)?
  - ii. How many rounds were fired by c/s 10 (2 RTR)?
  - iii. Did the HESH rounds from c/s 10 (2 RTR) strike c/s N12 (QRL)?
  - iv. What caused the damage to c/s N12 (QRL)?
  - v. What damage was caused to c/s N11 (QRL) (if any)?
- h. What were the principal causes of this accident and recommendations for future prevention?
- i. Could this accident have been prevented (either in whole or in part) and recommendations for future prevention?
8. The Board is to include in the Findings a clear and concise précis of the case in an easily readable form and in particular are to:
- a. Set out the facts which, in the opinion of the Board, have been established by the evidence.
  - b. Set out any additional facts relevant to the matter under inquiry disclosed by the evidence which are not specifically referred to in the Terms of Reference.
  - c. Ensure that all documentary exhibits referred to by each witness in the statements attached to the SIB Report are annexed to the Record of Proceedings. (In particular exhibits - MJLL/1, MJLL/2, RBT/1, RBT/2, RJD/1, DT/1, DT/2, DAC/2, KG/1, RMC/1, RML/1, LRM/1, GJM/1, SJN/1, MJG/1, RJA/1, AMP/1, WDR/1, WDR/2, MB/1, MB/2, MB/3, MB/4, MB/5, MRB/1, WGCB/1, CGH/1).
  - d. Ensure that the statements attached to the RMP (SIB) Report together with any additional evidence is annexed (including the LAIT and any other reports) to the Record of Proceedings. The RMP (SIB) Report itself however is not to form part of the Record of Proceedings.
9. The Inquiry is to make any recommendation which it considers appropriate in respect of all matters list in 7 a-i above and any other matters it deems relevant.
10. The Inquiry is to report to the Convening Authority accordingly.
- ████████████████████

11. The following military witnesses are to be ordered to attend: - [Note – this list is provisional and may be revised according to the requirements of the Board of Inquiry]

- a. Lt
- b. LCpl
- c. Capt, Hldrs
- d. Maj, RTR
- e. Capt, RRF
- f. Maj, QRL
- g. SSgt, QRL
- h. Capt, QRL
- i. SSgt, QRL
- j. Cpl, QRL
- k. Tpr, QRL
- l. Tpr, QRL
- m. LCpl, QRL
- n. Tpr, QRL
- o. Capt, RA
- p. Sgt, QRL
- q. Capt, RRF
- r. Maj, RRF
- s. Maj, BW
- t. Capt, BW
- u. Maj, RTR
- v. Capt, RTR
- w. Sgt, RTR
- x. Cpl, RTR
- y. Tpr, RTR
- z. Sgt, RTR
- aa. LCpl, RTR
- bb. Tpr, RTR
- cc. Tpr, RTR
- dd. Sgt, W
- ee. Capt, BW
- ff. Capt, RA
- gg. SSgt, RTR
- hh. Lt, RTR
- ii. Sgt, RTR
- jj. Capt, RTR
- kk. Lt, RTR
- ll. Sgt, REME
- mm. WO1, REME
- nn. Cpl, REME
- oo. WO2, SCOTS DG
- pp. SSgt, RTR
- qq. WO2, RTR
- rr. SSgt, SCOTS DG
- ss. Maj, LD
- tt. Maj, RLC
- uu. Capt, RLC

[REDACTED]

vv. [REDACTED] Flt Lt [REDACTED], RAF  
ww. [REDACTED] Maj [REDACTED], RE  
xx. [REDACTED] Capt [REDACTED], BW  
yy. [REDACTED] Sgt [REDACTED], RE  
zz. [REDACTED] WO1 [REDACTED]

12. The following witness may be invited to attend:-
- a. Mr [REDACTED], Civilian
  - b. Col (Retd) [REDACTED], Civilian
13. The Inquiry is to hear evidence from such other witnesses, as it deems appropriate.
14. The Commanding Officer of AFV Gunnery School is requested to provide:
- a. A room suitable for the Inquiry.
  - b. Typing facilities
  - c. A Bible.
  - d. Copies of the following manuals, fully amended;
    - (1) Manual of Military Law Part 1.
    - (2) Queen's Regulations 1975.
    - (3) Food/accommodation/transport for all persons attending the Inquiry.
    - (4) A SNCO to act as orderly to the Inquiry.
15. The president is to forward the original and seven copies of the record of proceedings to Headquarters 1<sup>st</sup> (United Kingdom) Armoured Division on completion of the Inquiry.

Signed: -

Appointment:- SO3 G1 Disc

Date: - 5 May 04

Authorised to sign for  
General Officer Commanding  
1<sup>st</sup> (United Kingdom) Armoured Division

[REDACTED]



# FLAG C

## FINDINGS OF THE BOARD

### SIDE FLAG 1 – KEY PERSONALITIES

### SIDE FLAG 2 – SEQUENCE OF EVENTS



## GENERAL OUTLINE

1. Deployment on Op TELIC. 7<sup>th</sup> Armoured Brigade (7 Arm'd Bde) deployed on Op TELIC in February 2003. 1<sup>st</sup> Battalion, The Royal Regiment of Fusiliers (1 RRF) and 1<sup>st</sup> Battalion, The Black Watch (1 BW) Battlegroups (BGs) comprised two of the BGs in the Brigade. C Squadron, Queen's Royal Lancers (C Sqn QRL) was attached to 1 RRF BG and Egypt Squadron, 2<sup>nd</sup> Royal Tank Regiment (2 RTR) was attached to 1 BW BG. In late March 2003, 7 Arm'd Bde commenced operations in Southern Iraq, specifically in the area of AZ ZUBAYR and the key bridges over the Shatt al Basra Canal on the western outskirts of Basra, having conducted a Relief in Place with 7 RCT (US). C Sqn QRL seized Bridge 3 at Grid QU 627762 and Z Coy 1 RRF seized Bridge 4 at Grid QU 653705. BGs placed lodgements on the far bank of the Canal so that the approaches to the bridges could be denied to the enemy. On 24 Mar 03, 1 RRF handed over Bridge 4 to B Coy 1 BW. B Coy based themselves in a compound on the western side of the Canal and were co-located with Egypt Sqn 2 RTR. The force deployed by B Coy on the Basra side of Bridge 4 consisted of a Warrior (WR) platoon and a tank troop of Egypt Sqn 2 RTR on a rotational basis. On the same day the boundaries of C Sqn QRL were expanded to include responsibility for a dam at Grid QU 647719, 1400m to the north of Bridge 4. Two Challenger 2s (CR2), C/S N11 and N12 (QRL), were sited in an overwatch position on this feature at Grid QU 646719.

Flag D-a-P8

2. Outline of Incident. At about 0050 hrs Zulu<sup>1</sup> on 25 Mar 03 the commander of a CR 2 (C/S I10) of Egypt Sqn 2RTR, positioned on the eastern side of the Canal identified hotspots through his thermal imaging (TI) sight [REDACTED] to the north west of his location. He considered that these were enemy dismounts climbing in and out of a bunker. After a period of deliberation he sought permission from the local infantry commander to open fire; this was given. He fired one round of HESH which landed short of the intended target but near enough to QRL C/S N11 and N12 for the effects of blast to throw crewmen off the turrets and for molten debris to set fire to them. Some 6 minutes later C/S I10 (2 RTR) observed an armoured vehicle moving in the same vicinity as the bunker, which he identified as an enemy MTLB. This movement was, in fact, the CR2 of C/S N11 (QRL) reversing. A further HESH round was fired towards this target which hit C/S N12 (QRL). The round detonated on the commander's hatch causing high velocity fragments to enter the turret, setting it on fire and causing an explosion and the subsequent destruction of the tank. Both Cpl Allbutt and Tpr Clarke who were positioned in the tank died instantly. The other members of the crew, LCpl [REDACTED] and Tpr [REDACTED], who had been thrown off the tank by the blast from the first round received serious burns and other injuries. Debris caused by the detonation of the second HESH round struck the rear of C/S N11 (QRL), but this did not result in any injuries or extensive damage.

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<sup>1</sup> All timings are ZULU.

## BACKGROUND TO INCIDENT

3. Orders. The orders that are relevant to the incident are as follows :

a. 1 (UK) Armd Div. HQ 1 (UK) Armd Div OPO 001/03 dated 152300Z Feb 03 ordered that the Limit of Exploitation (LOE) for initial operations for 7 Armd Bde was the Shatt al Basra Canal. Any decision to move into Basra would be taken by GOC 1 (UK) Armd Div.

Flag D-a-P8/9  
D-b-P19  
M-AWT/1

b. 7 Armd Bde. HQ 7 Armd Bde OPO 002 dated 062300Z Mar 03 and OPO 003 dated 172359Z Mar 03 ordered 1 RRF BG to secure Bridges 1- 4 over the Shatt al Basra Canal. Z Coy 1 RRF was given the task of securing Bridge 4 on the Canal, having conducted a Relief in Place with 7 RCT (US). A Fire Support Safety Line (FSSL)<sup>2</sup>, 2km to the east of the Canal, would be imposed to delineate the city of Basra as Divisional battlespace. The Rules of Engagement were initially assessed as permissive.

Flag M-ATC/03 P9

Flag M-ATC/03  
PC-2

c. B Coy 1 BW. OC B Coy delivered orders to his company on the evening of 23 Mar 03 from the Compound on the western side of the Canal. He gave his mission as to block Bridge 4 in order to prevent enemy penetration of Basra. His intention was to dominate the ground forward of Bridge 4 up to his self-imposed Limit of Exploitation on the main road to Basra from Bridge 4.

Flag D-z-P20-C

4. Description of Ground from Bridge 4. A description of the ground on the eastern side of the canal is as follows :

a. Left. Bridge 3, held by C Sqn QRL, was situated at Grid QU 627762. Bridge 3A, as it appears on the 7 Armd Bde Operations Trace dated 23 Mar 03, was at Grid QU 639740. This crossing point did not appear on any of the mapping that was issued. However, according to OC C Sqn QRL, there was a crossing point at this grid, which he covered. The Dam was at Grid QU 647719. On the Bde Operations Trace there is no designation of this crossing site, as it does not appear to have been identified until troops arrived on the ground. This crossing could be used by dismounted personnel and light vehicles and had been covered by fire by Z Coy 1 RRF from within the Compound. QRL C/S N11 & N12 moved into position at the Dam after B Coy had taken over Bridge 4. On the ramp leading up to the Dam was a line of scrap vehicles. On the home bank there were two berms, one to the east of their position and one to the south.

Flag D-f-P79  
L-WDR/1

Flag D-d-P60

b. Centre. Coy HQ was situated in a compound at Grid QU 648704 on the home bank of the Canal. Bridge 4 is at Grid QU 653705. This is a very high structure and upon looking north-west from the centre of the Bridge the Dam is clearly visible, as is Bridge 3 beyond it. There is a dual carriageway running from the south west over Bridge 4 and into Basra, 2km distant. This road

<sup>2</sup> 'Used to open part of an area of operations for attacks by artillery of higher formations without prior co-ordination. Particularly useful when forward boundaries have not been established.' Formation Tactics Pt 1, 2002 para 518c.

was designated Auxiliary Supply Route (ASR) TOPEKA. Approximately 2km from the Bridge, on the left of the dual carriageway, at Grid QU 659721, is a university complex with a distinctive wall around its perimeter. The southern edge of this compound is at Grid QU 660717 and the western edge is at Grid QU 655721. From the position of the lodgement on the eastern bank, the course of the Canal to the north west can be determined by a double pylon line which runs 100m to the east of and parallel to this feature. In the open ground between the Canal and the University Compound were a number of destroyed or scrap vehicles.

c. Right. The area to the south east of the bridge was salt marsh, unsuitable for armour and vehicles. The Canal runs in a south easterly direction towards Bridge 5 and the 3 Cdo Bde Area of Operations.

5. Situation on Arrival of Z Coy 1 RRF at Bridge 4. The situation on the arrival of Z Coy 1 RRF, under command of Maj [REDACTED], at Bridge 4 on 22 Mar 03 was as follows :

a. Enemy Situation. The main enemy threat, received from Special Forces, was assessed as an attack along the dual carriageway towards Bridge 4 by T55's. Other threats included technicals (4 x 4 pick up trucks) mounting .50"MGs, and dismounted RPG teams with these attacks being launched from the University Compound down the main approach to the Bridge. There had been no enemy activity between Bridges 3 and 4.

Flag D-d-P60  
Flag K-r-P3

Flag K-ff-P3

Flag D-c-P35

b. Civilians. Following any attack, the normal pattern of life would resume with civilian groups of up to 500 people congregating on the outskirts of the built up area hoping to cross the Bridge.

c. Boundaries. The boundaries that had been given to Z Coy were as follows:

(1). Right boundary. The right boundary was with 2 RTR BG on Bridge 5, 3 kms to the south east. Further to the south was 3 Cdo Bde.

(2). Left Boundary. The flanking unit to the Coy's left was C Sqn QRL at Bridge 3. The inter sub unit boundary was the Dam at Grid QU 647719, which was inclusive to Z Coy.

Flag D-d-P50&51

d. Arcs. The dual carriageway into Basra was used as the Z Coy axis and the arcs of fire that were decided upon by Maj [REDACTED] and briefed to his troops were as follows :

Flag D-d-P60

(1). Right of Arc. The right of arc from the dual carriageway was the expanse of open ground and salt flats to the south east.



(2). Left of Arc. The left of arc was the western edge of the University Compound at Grid QU 655721.

e. Restrictions on Opening Fire. As the enemy situation was relatively calm and there were civilians in the area, OC Z Coy imposed a restriction on opening fire to ensure that only well defined targets were engaged. There was to be no shooting back over the Canal, due to the location of other friendly forces.

Flag D-d-P54

6. Handover of Bridge 4. On 23 Mar 03, a co-ordination meeting was held at Bde HQ between Bde staff and the Operations Officers from 1 BW and 1 RRF BGs, following which new boundaries were agreed. The new inter BG boundary was approximately 500m to the north west of the dual carriageway on the home bank of the Shatt al Basra Canal and would change on 24 Mar 03. On the afternoon of 23 Mar 03, B Coy 1 BW received radio orders from BG Main tasking them with relieving Z Coy 1 RRF on Bridge 4. As OC B Coy, Maj [REDACTED], had to commence the handover, he did not attend the 1 BW BG O Group that evening.

Flag D-c-P34  
D-o-P243

7. Briefings by Z Coy 1 RRF. OC B Coy received a brief from the Z Coy WR Sgt Maj relating to the ground and the enemy situation on arrival in the Compound. This brief was attended by all platoon commanders as well as Lt [REDACTED] and Sgt [REDACTED] of 10 Troop, Egypt Sqn 2 RTR, who had been detached early from the Squadron. The brief finished after last light and both OC Z Coy and OC B Coy went forward to observe the ground east of the Bridge. The enemy situation was calm at the time of the handover to B Coy. The handover was completed during the period 0300 - 0330 hrs on 24 Mar 03, with handovers taking place between individual vehicle commanders on the ground forward of the Bridge.

Flag D-z-P20F  
D-z-P8C/  
25B/28A  
D-c-P44  
K-r-P2  
K-q-P2

8. OC B Coy's Orders. OC B Coy 1 BW then gave formal orders to all turret commanders and WR Sgts in the Compound. OC B Coy had not seen the 7 Armd Bde Operations Trace dated 23 Mar 03 prior to giving his orders. Apart from the 10 Troop crew commanders, no other members of Egypt Sqn were present. The B Coy tasks were to block Bridge 4 and man a VCP to the south west of the Compound on the dual carriageway. There was little known about the locations of friendly forces in the neighbouring BGs to the north of B Coy's position, apart from the fact that 1 RRF had control of Bridge 3. OC B Coy established a further LOE east of the Shatt, based on three report lines along the dual carriageway towards Basra. The lodgement force, initially under the command of the Coy 2IC, consisted of a platoon of 4 WRs forward of the Canal and a troop of tanks of which two were forward and one was in reserve on the home bank of the Canal. The OC ordered the Coy 2IC to designate the arcs for the lodgement force once the latter had viewed the ground. These were then to be confirmed by OC B Coy. Maj [REDACTED] decided that briefings of troops and platoons would take place forward of the Bridge at the commencement of their rotation, over the B Coy radio net. This would be conducted, initially, under control of the 2IC who would monitor the briefs to ensure they were consistent and correct; errors or omissions would be rectified at this stage. Maj [REDACTED], OC Egypt Sqn advised that the tank troops should rotate on a 3 hourly basis.

Flag D-z-P4F

Flag D-z-P10D  
D-v-P74G

Flag K-r-P2

Flag D-z-P21C-E

Flag D-z-P21C-E

9. Egypt Sqn Activity at Bridge 4. Lt [REDACTED] and Sgt [REDACTED] of 10

Troop deployed over the Bridge at 0300 hrs 24 Mar 03, taking over from a troop of C Sqn QRL (1 RRF BG). The remainder of Egypt Sqn arrived at the Compound at approximately midday on 24 Mar 03 having received radio orders to support B Coy at Bridge 4. On arrival in the Compound OC Egypt Sqn had a discussion about the general situation with OC B Coy and then gave a set of quick battle orders (QBO's) to his crew commanders about the tasks. He did not brief about the arcs of fire over the Canal as this was to be co-ordinated by B Coy 1 BW.

Flag D-l-P171/173  
D-w-P114C/  
118D

Flag D-w-P133G

10. B Coy Boundaries. The 7 Armd Bde trace dated 23 Mar 05 showed 1 BW BG's left boundary (and so B Coy's left boundary) as being 500m to the north west of Bridge 4 and ending at the Shatt al Basra Canal. This new boundary would come into effect on 24 Mar 03. As OC B Coy had not seen the latest Bde trace depicting the new boundaries he made an assumption based on his interpretation of previous traces. He considered that the boundary ran along the centre of his axis, the dual carriageway running into Basra. This meant that the area of main enemy threat, the University Compound, was outside his boundaries which made no sense to him. Thus he took his left boundary to be the line of the Shatt al Basra Canal running away to the north west. Although he was aware of the Dam, he believed that this feature was in the area controlled by 1 RRF BG and was not inclusive to his left boundary.

Flag D-z-P8G/9D

Flag D-z-P13B-D

Flag D-z-P16A/30E

Flag D-z-P16C-D

11. B Coy Arcs and Target Reference Points. OC B Coy considered that the boundaries were confused and that he needed to impose a safe system to mitigate the risk of fratricide. He was clear that there were no friendly forces, apart from the B Coy lodgement, forward of the Canal. He assessed that by setting a left of arc relative to his axis of the dual carriageway and within his left boundary of the line of the Canal, he would provide 'an additional buffer'. He sent Capt [REDACTED], 2IC B Coy, across the Canal to confirm the arcs of fire. The 2IC positioned his WR at the start of the dual carriageway, taking up position before dawn on 24 Mar 03, and was on task for about 19 hours. He assessed that the main threat was from the University Compound on the left, the main road out of Basra in the centre and from dismounted teams on the right. As fire needed to be directed against the enemy compound, the left of arc was the western edge of the University Compound and the right of arc was the area of open ground at about 3 O' clock to the dual carriageway. The left of arc was inside OC B Coy's assumed boundaries and so deemed safe and allowed B Coy to dominate the main area of enemy threat so that the mission could be achieved. Target reference points were also indicated. These consisted of the western and southern edges of the compound wall, the wrecks of a T55 opposite the compound on the right and a truck to the left of the road to the south of the compound wall. Nearer to the Bridge on the left hand side of the dual carriageway was a destroyed T54/55 and a D30.

Flag D-z-P13A&E

Flag D-z-P9D

Flag D-u-P39A  
D-l-P174  
D-n-P223  
K-r-P2

12. QRL Tanks At The Dam. C Sqn QRL had secured Bridge 3 by the night of 22 Mar 03. On the morning of the 24 Mar 03, Capt [REDACTED], 2IC C Sqn QRL, attended the 1 RRF BG O Group. He received orders which expanded C Sqn's right boundary up to the left side of Bridge 4 and included responsibility for a concrete dam at Grid QU 647719. Following these orders Capt [REDACTED] briefed the OC, Maj [REDACTED]. It would appear that, at this stage, the Squadron's southern boundary was misinterpreted. This was taken to be the left hand side of the dual carriageway forward of

Flag K-f-P1

Flag D-h-P116

Bridge 4. C/S N12 (QRL), Cpl Allbutt, was dispatched to the Dam by OC C Sqn over the radio at 1200 hrs. C/S N11 (QRL), Sgt [REDACTED], was briefed by Capt [REDACTED] on the new boundaries and tasking whilst in the Squadron secure area, 1km to the west of the Canal. He took the boundaries from Capt [REDACTED]'s map which he had copied from the trace on the bird table at HQ 7 Armd Bde. The task of the tank at the Dam was to prevent infiltration either out of or into Basra. C/S N11 (QRL) deployed later to the Dam in order to assist C/S N12 (QRL) who had dismounted two of his crew to disperse a group of civilians attempting to cross the Dam from the direction of Basra. It was clear that the blocking of Bridge 4 had been effective and OC B Coy 1 BW states that he had heard reports of civilians trying to cross the Dam. Sgt [REDACTED] briefed Cpl Allbutt on the change in boundaries and gave him his trace to copy onto his map. He gave the right of arc as the dual carriageway running up to the University Compound. C/S N12's (QRL) position was just south of the track leading to the Dam covering the approaches. Later, following a mortar attack, both callsigns adjusted to the north of the track, some 300m apart. At 1300 hrs Sgt [REDACTED] reported to his Sqn HQ that there were WRs manoeuvring forward of his position along the dual carriageway and entering into his arcs of fire.

Flag D-z-P14A &  
G / 34B

Flag D-h-P126

Flag K-f-P2

13. Visit of QRL LO To B Coy Compound. SSgt [REDACTED], the Liaison Officer (LO) for C Sqn QRL was dispatched to the Dam to talk to Sgt [REDACTED] who briefed him on the situation. From there he went to visit the OC of the neighbouring sub-unit, Maj [REDACTED], based in the Compound to rectify the problem. He took with him Sgt [REDACTED]'s marked map, which showed that his right hand boundary was the dual carriageway running over Bridge 4 and into Basra. The LO met with OC B Coy at 1350 hrs and expressed his concern about the WRs entering C Sqn's boundaries and arcs of fire. For his part the OC explained that, on occasion, he needed to exploit along the dual carriageway to the outskirts of Basra in order to dominate the approaches to the Bridge, and he was concerned that the QRL's arcs included the area of this troop movement. They went to the forward edge of the Compound and looked at the area in dispute. The LO pointed out where his tanks were located and what they had been given as a task. OC B Coy had taken the Shatt al Basra Canal as his left boundary with the dual carriageway as his axis, and he had taken his left of arc as the western edge of the University Compound. He explained that, as he needed to be able to fire on the enemy compound, he had instituted what he considered was a safe left of arc. Since the QRL tanks were on the home bank of the Canal and that his left boundary had not changed, Maj [REDACTED] was satisfied that the arcs in place did not require adjusting. OC B Coy remembers reporting the QRL position and tasks on the Coy net before departing to BGHQ for orders before last light. It appears that this message was not received by personnel within the Company. After last light the Coy 2IC returned to the compound from his position forward of the Bridge to control the Company until the OC's return. SSgt [REDACTED] returned at about dusk to Sgt [REDACTED]'s location and briefed him on the outcome of his conversation with OC B Coy and stated that the problem had been resolved. SSgt [REDACTED] had copied the B Coy frequency and marked it on Sgt [REDACTED]'s map. SSgt [REDACTED] was satisfied that the location of the two QRL tanks at the Dam was known by B Coy.

Flag D-h-P117  
L- Exhibit  
KG/1

Flag D-g-P105  
D-z-P32A

Flag D-z-P33F  
P31G/32C

Flag D-h-P117  
D-g-P103

14. 10 & 11 Troops Egypt Sqn Hand over at Bridge 4. At 1800 hrs 24

Mar 03, the Troop Leader of 11 Troop, Lt [REDACTED], received a verbal brief in the home bank Compound from the Troop Leader of 10 Troop, Lt [REDACTED], on the situation forward of the Bridge, who handed over a sketch map. The left of arc was given as the left-hand edge of the compound and the right of arc as the area of the waste ground on the right. Lt [REDACTED] then took Lt [REDACTED] over the Bridge to show him the ground and complete the handover via the Company net, with the Coy 2IC listening in and providing additional information. Cpl [REDACTED], C/S I32 (2RTR), was briefed by Sgt [REDACTED] on the radio. Lt [REDACTED] states that he did not know where the inter BG boundary was located. He states that the brief contained a description of the ground, the enemy picture and the arcs for the two fire positions, as follows.

a. Northern Fire Position.

Left of Arc : Left edge of the University Compound.  
Right of Arc : 12 o'clock on the dual carriageway.

b. Southern Fire Position.

Left of Arc : 12 o'clock on the dual carriageway.  
Right of Arc : Approx 3 o'clock from the dual  
carriageway.

15. 9 Troop Egypt Sqn Activity Prior to Moving Over Bridge 4. Lt [REDACTED], Troop Leader of 9 Troop Egypt Sqn, was detailed on the 24 Mar 03 to man a VCP while the remainder of the Squadron deployed to the Compound at Bridge 4. He did not receive the initial brief from OC Egypt Sqn in the Compound, however he was briefed by him on the Squadron net and subsequently by C/S I31 (2 RTR), Sgt [REDACTED], at the VCP. He was relieved by 12 Troop (Lt [REDACTED]) at the VCP and moved to join the Squadron at the Compound arriving at approximately 2115 hrs and was there for about 2 ½ hours on rest. The Tp Sgt of 9 Troop had broken down and did not move to the Compound. In the Compound, Lt [REDACTED] met up with Lt [REDACTED] and Sgt [REDACTED] who had returned from their rotation over the Bridge, who gave him a brief on the situation. According to Sgt [REDACTED] he drew a sketch map on the floor and gave arcs of fire. This was not the formal brief for that task as this was to be conducted once in position on the enemy side of the Canal. There was no requirement to report to Coy HQ in the compound for a brief. C/S I10 (2RTR) maintains that he was briefed that the main enemy threat was from dismounted RPG teams in the open ground to the left of the University Compound, and that there was no left of arc. Lt [REDACTED] briefed Cpl [REDACTED], C/S I12 (2RTR) in situ on the tasks and the arcs of fire. Cpl Brown states that the dual carriageway was the centre of arc for both callsigns with the right of arc for C/S I12 (2 RTR) being 3-4 O'clock and C/S I10's (2 RTR) left of arc being 8 o'clock from the dual carriage way.

16. ORL Activity at the Dam. After dusk Sgt [REDACTED] (N11) moved his tank to join Cpl Allbutt (N12) at the Dam and parked about 20 feet away to his left facing across the Canal. They considered themselves to be in a hull down position from the east and south as the tanks were in a slight dip with berms to their front and side and with scrap vehicles

Flag D-x-P170F/  
172G/173C  
D-n-P231

Flag D-x-175A

Flag D-cc-P6  
D-l-P187  
D-x-P178G

Flag K-qqq-P66  
D-aa-P12D

Flag D-aa-P11C

Flag D-aa-P14A

Flag D-aa-P14D&E  
P19B  
P20B&C

Flag D-r-P45B  
K-w-P1

obscuring their right flank. During the night thermal watch was to be provided from one tank and local protection from the Loader's pintle mounted MG from the other, using Night Vision Goggles. This would mean that at any given time two men would be on watch. At approximately 1800 hrs, Sgt [REDACTED] spotted about 12 suspected enemy dismounts, moving from the University Compound in the direction of B Coy. He set his radio to B Coy's frequency in order to inform them but, before he could do so, the enemy were engaged and destroyed by direct and indirect fire.

### DETAIL OF THE INCIDENT

17. The Handover to C/S I10 (2RTR). Apart from the enemy dismounts mentioned above, there had been no enemy contact prior to 9 Troop taking over at the Bridge. Lt [REDACTED] had not deployed over the Bridge prior to this and had not seen the ground in daylight. Cpl [REDACTED] handed over the northern fire position to Lt [REDACTED] and maintains that he briefed him the same arcs and enemy picture that he had been given on his handover. Lt [REDACTED] cannot recall the exact details of the brief except that he states that a right of arc was given to him by Sgt [REDACTED] and Cpl [REDACTED] but no left of arc and was informed that the main threat was from the left of the compound. C/S I10 and I12 (2 RTR) adopted the same positions as the tanks they were relieving with the hulls of both callsigns pointing directly up the road toward Basra. Lt [REDACTED] states that he did not receive a briefing from Coy HQ or 5 Platoon Commander, Capt [REDACTED] who, now that the 2IC had returned to the Compound, was in charge of the lodgement. Lt [REDACTED] considered that there was little co-ordination between the troop and the platoon and that he was 'pretty blind' as he commenced his task, but assumed that all other troops had received the same level of information. Capt [REDACTED] could not be contacted via the radio until after the incident, so all communications were conducted with the WR Sgt, Sgt [REDACTED]. Lt [REDACTED] was content with this as he was at least able to speak to someone in 5 Platoon but no enquiries were made to confirm the arcs infantry were using. Lt [REDACTED] states that, on his own initiative, he self-imposed a left of arc and a restriction of not firing back over the Shatt al Basra Canal; he was able to see the first couple of pylons running along the line of the Canal on the eastern side. He states that he was warned that tank-killing parties were going to come from the left flank and he considered that the threat to the left flank was greater than the threat from Basra. Lt [REDACTED] states that he had been briefed that the nearest friendly forces were about 3km to his north along the Canal towards Bridge 3, although it is unclear who specifically gave him this information. He states that he did not have a left hand boundary and that he would fire at a legitimate target even if the path of the round took it into friendly force areas on the home bank of the Canal. Capt [REDACTED], OC 5 Pl at the time that Lt [REDACTED]'s troop commenced its task over Bridge 4, states that he did not know about the location of friendly forces at the Dam but recalls receiving a brief over the radio from the Coy 2IC concerning the arcs of fire prior to his task over Bridge 4.

18. Weather Conditions. The weather conditions that night were ascertained from an RAF meteorological expert. It was a dry, dark but clear night, with visibility generally 10-15 km. Twilight was at 1602 hrs

Flag D-h-P117

Flag K-q-P2

Flag D-aa-P20F/G

Flag D-cc-P19  
D-aa-P17A-E/  
19C/72B

Flag D-aa-16C/D  
P19B &  
P25A &  
P27A  
P29C  
P30F  
P32A-E  
P61F  
D-dd-P17E  
K-qqq-P31&  
P70/P75/  
P84  
D-v-P78F-G

Flag D-aa-P18C  
D-aa-P35E

Flag K-bb-P2

and moonrise had occurred at about 2245 hrs on 24 Mar 03 and lux levels at 0001 hrs and 0100 hrs, 25 Mar 03 were 10 and 13 respectively. This meant that it was neither a particularly bright or dark night.

19. C/S I10 (2 RTR) Identifies 'Hotspots'. At 0050 hrs C/S I10 (2 RTR) observed 2 'hotspots' through the Thermal Observation Gunnery System (TOGS) TI Sight<sup>5</sup>, which looked as though they were personnel moving in and out of a bunker. The Platoon Commander could not be raised on the radio and so he reported this sighting to Sgt [REDACTED], the WR Sgt, and states that he described their location as being 'on the banks of the river', calculating that the target was on the enemy side of the Canal. However, Sgt [REDACTED] understood that the target indication referred to was 'truck' which was located by the southern edge of the enemy compound at about 12 o'clock to the Bridge just to the left of the dual carriageway. Lt [REDACTED] asked Sgt [REDACTED] if he could see the hotspots which, as his WR was only fitted with an Image Intensifying Sight, he couldn't. In any event, due to confusion over target indication, he was looking at a different location to C/S I10 (2 RTR), but he offered to fire chain gun at what he believed was the target area. Lt [REDACTED] then reported that the hotspots had disappeared. As Lt [REDACTED] did not have communications with B Coy HQ he states that he asked Egypt Sqn HQ to clarify his left hand boundary and whether there were any friendly forces in that area. The Squadron Battle Captain, Capt [REDACTED], states that he thought this was a general enquiry and he did not know that Lt [REDACTED] was observing a potential target and considering engaging. Capt [REDACTED] sought the up to date information from BG HQ but states that, whilst waiting for a reply, a friendly fire incident had occurred. However, Lt [REDACTED] states that he had received a reply from Sqn HQ saying that there were no friendly forces to his north as far as Bridge 3. A short time later Sgt [REDACTED] believed he was under RPG attack from his right flank and returned speculative chain-gun fire. None of the other C/S in the position forward of the Bridge knew that Sgt [REDACTED] was under attack and they did not witness the RPG being fired, nor were they under attack themselves. At this moment Lt [REDACTED] came back on the net stating that four hotspots had now appeared in the same area as before and requesting permission to open fire. LCpl [REDACTED], the gunner, asked his crew commander whether the hotspots could be civilians. According to the evidence of the crew of C/S I10 (2 RTR) Lt [REDACTED], LCpl [REDACTED] and Tpr [REDACTED], it was Sgt [REDACTED] who briefed over the radio that this sighting accorded with previous enemy activity as they had been dumping weapons and ammunition in that area. However, it is the opinion of the Board that there was confusion and that Sgt [REDACTED] thought that the area of the University Compound was being referred to, rather than the open area further to the left. The assessment was that the enemy was attempting to outflank the Company position. Lt [REDACTED] states that he was informed that there was an air strike on the compound due in the morning and the intention was to keep the enemy concentrated to maximise the effects. As the Platoon Commander could still not be raised on the radio, permission to fire was granted by Sgt [REDACTED]. The Platoon Commander came on the air after the second round and agreed with the decision to open fire.

Flag D-aa-P40A-D  
D-aa-P42A-B  
D-t-P23C-G

Flag D-t-P23C

Flag K-t-P2  
D-aa-P46B &  
62B  
D-dd-P8B  
D-s-P76F.  
K-aa-P2  
D-u-P54E  
D-dd-P5F  
K-qqq-P142  
D-aa-P46A-D  
K-v-P2  
K-ppp-P135

Flag D-t-P24F

Flag D-u-P56B-D  
L-RMC/1  
K-aa-P2  
D-aa-P51B

According to the evidence of the crew of C/S I10 (2 RTR) and the BG radio log the first round of HESH was fired at approximately 0122 hrs, 30 minutes after first observing the hotspots. This round was reported by C/S I10 (2 RTR) as 'falling short'. Lt [REDACTED] saw a splash of soil but no explosion which made him think that he had hit just in front of the bunker. The hotspots disappeared and C/S I10 (2 RTR) ceased firing. Some 6 minutes later C/S I10 (2 RTR), having observed an armoured vehicle reversing away from the scene, fired a second HESH round into the same area as the first round. According to Lt [REDACTED]'s evidence he fired at the bunker again rather than the MTLB, but LCpl [REDACTED] states that he received the fire order 'HESH, MTLB' from his commander and so laid his aiming mark onto the vehicle. The subsequent explosion was to the right of the supposed MTLB. Following this round Lt [REDACTED] and LCpl [REDACTED] witnessed a small fire and an explosion in the same area as where he had fired the first shot and considered that they had hit an ammunition dump. The engagement was discontinued. C/S I12 (2 RTR) states that he took no part throughout the entire engagement, as he could not see the target area. At no stage was he ordered or did he volunteer to adjust position to view the area and assist C/S I10 (2 RTR) in confirming the target, and did not himself fire at the target. His computer log was checked after the incident, which confirmed that no rounds had been fired that day<sup>4</sup>. Following the incident, C/S I10 (2 RTR) sent a contact report which Sgt [REDACTED], who had tuned to the B Coy 1 BW frequency, heard and noted that the grid given for the enemy was on the opposite side of the Canal from his position. C/S I10 (2 RTR) asked to be relieved of his task at the Bridge and he was replaced by C/S I42 (2 RTR). C/S I10 then returned to the B Coy Compound.

P55 F/G  
P56A-C  
L-Exhibit  
DAC/1  
K-qqq-P32  
K-ppp-P142  
D-aa-P54A  
K-u-P3  
Flag D-ee-P16C-E  
P27B  
Flag D-aa-P58C-D  
P63D-E  
K-iiii-P7-8  
K-ppp-P11&  
P143

20 Effect on QRL Tanks at the Dam. At the time of the incident the personnel on watch in the QRL position had just changed and it is assumed that it was the movement on top of their turrets that C/S I10 (2 RTR) observed through his TI sight. In C/S N11, Tpr [REDACTED] was on watch in the Loader's hatch with Sgt [REDACTED] asleep on the back decks and Tpr [REDACTED] and LCpl [REDACTED] asleep on top of the turret. At approximately 0120 hrs Tpr [REDACTED] saw the trace of an in-coming round and LCpl [REDACTED] stated that he heard Cpl Allbutt shout 'incoming'<sup>5</sup>. Sgt [REDACTED] believes that this round did not strike either of the two tanks directly and that it landed to the front right of C/S N11 (QRL). Sgt [REDACTED]'s describes his sleeping bag and clothing catching alight and being covered in what he described as 'molten playdough'. He states that he stripped off and jumped into his turret by which time Tpr [REDACTED] was already in his position in the gunner's seat with Tpr [REDACTED] crawling under the gun to get into his driver's seat. LCpl [REDACTED] had been blown off the tank and been covered in earth; he states that he came round on the ground about 10-15 feet away from the tank and saw Sgt [REDACTED] on fire and then he scrambled back on board. He states that Tpr [REDACTED] who had been on watch from the loader's position was attempting to close the loader's hatch as he was trying to get in. Sgt [REDACTED] and Tpr [REDACTED] assessed that this process took no more than 20-30 seconds. On C/S N12

Flag K-h-P3  
Flag K-g-P3  
  
Flag D-h-P118  
D-j-P160  
K-h-P3  
  
Flag N-b-P15F-G

<sup>4</sup> C/S I12's FCC was checked by Sgt [REDACTED] RMP on 17 Jul 03. The last 10 engagements on the log ranged from 08 Mar - 06 Apr 03. No rounds were recorded as having been fired on 25 Mar 03; the previous round to this date was 08 Mar 03 and the subsequent one was 27 Mar 03.

<sup>5</sup> [REDACTED]

(QRL), Cpl Allbutt was on watch in the commander's seat and Tpr Clarke was in the driver's compartment on rest. LCpl [REDACTED] was asleep on the back decks and Tpr [REDACTED] was standing up on the back decks carrying out a task. He cannot remember much of detail after the first round except that he had severe injuries to his legs, he was unable to see and was bleeding profusely from his head. The explosion from the first round knocked LCpl [REDACTED] off the tank and set him alight; Tpr [REDACTED] heard him screaming and shouting for help although, according to LCpl [REDACTED], he did not receive first aid until after the second round had impacted. Observing towards C/S N12 (QRL), Sgt [REDACTED] heard Cpl Allbutt shouting 'Get in, get in' to his gunner to get him into the turret and then saw a stretch of fire which he took to be a second round, possibly from artillery, due to his impression of the trajectory, come into their location and appear to go straight through the commander's hatch. The second explosion set fire to LCpl [REDACTED] again and may have caused further injury to Tpr [REDACTED] who was also on the ground following the impact of the first round. From their evidence Tpr [REDACTED], Tpr [REDACTED] and LCpl [REDACTED] did not see the round that hit C/S N12 (QRL) as they were inside their tank, but they did hear its impact. LCpl [REDACTED] was ordered out to administer first aid to the injured crewmen after the round that hit C/S N12 (QRL). Tpr [REDACTED] moved from the gunner's seat to the loader's position and tried to shut the loader's hatch which was difficult due to the debris, before he was ordered out to help administer first aid as well. Sgt [REDACTED] stated that there was an instantaneous explosion, although his later evidence indicated that, initially, the tank started to burn intensely and 'cook off' before subsequently exploding. After C/S N12 (QRL) had been hit, he immediately ordered two of his crew to dismount to administer first aid to the injured, having seen LCpl [REDACTED] on fire and opening his hatch telling him to 'roll over'. Tpr [REDACTED] recalls LCpl [REDACTED] coming to give him first aid and LCpl [REDACTED] recalls Tpr [REDACTED], the gunner of C/S N11 (QRL), administering first aid to him prior to losing consciousness. Both recall seeing flames coming from the tank and exploding after it had been hit. LCpl [REDACTED]'s next memory is waking up in the UK. Whilst giving first aid, LCpl [REDACTED] noticed that the commander's cupola, loader's GPMG and pintle mount were on the ground having been blown off. According to the evidence of Sgt [REDACTED], he then reversed following what he thought was a second round. On looking through his episcopes he states that he saw another incoming round which he believed struck the rear of his vehicle but causing no injuries or significant damage. LCpl [REDACTED] states that he saw a round come straight across his front and hit the back of the tank. Sgt [REDACTED] states that he assumed that this was RPG fire and sent a contact report to that effect. Scanning to the right he identified two CR2s in the area of the Bridge. He then realised what was happening and flicked onto the B Coy radio net and, according to his evidence, he heard the end of a contact report saying that 2 x T55s had been engaged, the grid of which had been given as being on the north side of the Dam opposite Sgt [REDACTED]'s position. He then spoke on the radio telling them that they had just engaged his callsigns and to cease-fire. In his second appearance before the Board Sgt [REDACTED] states that he did not observe or contact any enemy before or during the incident and that, having initially thought that he was under RPG attack, he does not now believe that he was engaged by the enemy. He also accepts the possibility that what struck his tank could have been debris from C/S N12 (QRL). He states that the

Flag D-bb-P4  
D-ii-P2-3

D-bb-P18  
Flag N-d-P40G

D-i-P152  
D-j-P160

K-k-P4

Flag D-h-P118

N-b-P33E  
Flag N-b-P16C-D  
Flag D-bb-P21

Flag N-d-P40F

Flag N-b-P21E

Flag D-h-P119

Flag N-d-P47F

Flag N-d-P44G/  
P43C

Flag N-d-P43D /  
P45-46



trajectories of what he describes as the second and third rounds were very different with the former looking like artillery fire due to its high angle approach onto C/S N12 (QRL). He states that the latter round was direct fire from the area of the Bridge which he could now see having reversed sufficiently far back. LCpl [REDACTED] states that he believes that three rounds were fired; the first while he was asleep, the second while he was inside the turret which destroyed C/S N12 (QRL) and then one while he was administering first aid which hit C/S N11 (QRL). Tpr [REDACTED], the driver, who had been on watch, states that he was ordered to reverse, following which he saw C/S N12 (QRL) in flames and states that shortly after this a third round impacted near C/S N11 (QRL). He remained in his driver's seat until Sgt [REDACTED] informed him that it was a fratricide incident after which he states that he was ordered to reverse again about 15-20 yards away from the burning tank. Then he and Tpr [REDACTED] were ordered out of C/S N11 in order to assist LCpl [REDACTED] in giving first aid to LCpl [REDACTED] and Tpr [REDACTED].

Flag K-h-P4

21. Post Incident Action. C Sqn dispatched a wheeled ambulance to the scene, escorted by Sgt [REDACTED] QRL who then continued the overwatch task. The injured were then treated and evacuated by road, as an evacuation by helicopter was not authorised due to the location's proximity to the enemy. Sgt [REDACTED] was ordered by OC C Sqn QRL to take some photos of the scene which he did. These photos have not been discovered either during the initial RMP investigation or subsequently. A recovery vehicle later deployed to the Dam and recovered C/S N12 (QRL) approximately 80m to the rear. The RMP were informed but due to the operational situation could not examine the scene until 31 Mar 03. In the meantime the scene was not secured due to the security situation and so was not comprehensively cleared of evidence. The vehicle was eventually recovered to UMM QASR port where it was declared Free From Explosives and shipped back to the UK pending formal examination.

Flag K-i-P2

Flag K-ggg-P1  
K-iiii-P3

Flag K-f-P3  
O-d  
O-e  
Flag N-a-P3

#### WHAT TRAINING WAS UNDERTAKEN BY MEMBERS OF THE TANK CREW?

22. General. Egypt Sqn 2RTR completed a full training year in 2002. This consisted of an exercise on Salisbury Plain and deployment to BATUS for Exercise IRON ANVIL. Gunnery training in that year included annual firing at Bergen-Hohne and a 2 week live fire and manoeuvre exercise in BATUS.

Flag D-w-P160C

23. Pre-Deployment Training (PDT). When warned for Op TELIC at the beginning of 2003, the crew completed a truncated PDT package, which included the elements listed below.

a. Gunnery Training. The crew completed The Annual Crew Test (ACT) successfully at Hohne ranges, attaining a highly creditable Level 6 pass<sup>6</sup>.

Flag L-MB/4

b. Tactical Training. Each BG completed a 48 hour Field Training Exercise (FTX) on Hohne impact area, followed by a 3 day exercise at the Combined Arms Tactical Trainer (CATT) in

<sup>6</sup> Crews must pass ACT with a minimum of Level 4. The highest pass possible is a Level 6 Distinction.

Sennelager. These exercises were completed by C/S I10 (2 RTR).

c. AFV Recognition Training. Egypt Sqn completed in barracks AFV recognition training, at which C/S I10 (2 RTR) was present.

24. In Theatre Training (ITT). ITT took place in Kuwait and consisted of the following elements.

a. Gunnery Training. The emphasis was on zeroing all weapon systems. For CR2 crews this included commissioning each tank with the L27 operational round and the L29 practice round. These rounds were new into service and accuracy data had to be confirmed on the Fire Control Computer. A few rounds of each nature were fired, the latter so that each tank could participate in the Combined Arms Live Firing Exercise (CALFEX).

b. Tactical Training. The CALFEX consisted of a 15 km battle run in the desert against a variety of targets during both day and night, with infantry and armour working in close conjunction.

**HAD THE TANK CREW COMPLETED THEIR TRAINING PRIOR TO OP TELIC?**

25. The crew of C/S I10 (2 RTR) had completed the majority of the training required of them prior to Op TELIC. They had not participated in the CALFEX night shoot due to breaking down, although the crew had fired at night using CR2 thermal sights in BATUS and at Bergen Hohne throughout the training year.

**WAS ANY ADDITIONAL TRAINING UNDERTAKEN PRIOR TO OP TELIC?**

26. There was little time for additional training, what there was consisted of briefs on The Rules of Engagement (ROE) and The Geneva Convention.

**WAS THE TRAINING ADEQUATE?**

27. The training was deemed adequate as Egypt Sqn and the crew of C/S I10 (2 RTR) had conducted a full training year in 2002. Lt [REDACTED] felt generally prepared for the forthcoming operation, feeling that his crew had been trained to a high level of competence.

28. The Board agrees with LAIT's assessment that Lt [REDACTED] and the remainder of the crew of C/S I10 (2RTR) were considered competent due to their qualifications, experience, currency and maturity required by the standards laid down by HQ DRAC.

**HOW ARE BOUNDARIES PLOTTED?**

29. At Bde level, the inter BG boundaries are co-ordinated by the SO3 G3 Plans. He is responsible for ensuring that these boundaries are plotted

Flag K-hh-P1-2

Flag D-aa-P9D

Flag D-aa-P10E

Flag M-WGCB/01-  
P3 para 14A

Flag D-a-P4

on the Bde map, and that the trace is reproduced and disseminated to subordinate units. Traces may be delivered by courier or issued with the next piece of operational staff work. BGHQs ensure that sub unit commanders have the new information who, in turn, ensure that their vehicle commanders have their battle maps marked with the relevant operational information. At this stage the battle procedure can be said to have been completed. This process is time consuming in a fluid battle situation where plans and boundaries are changing on a frequent basis.

D-b-P21

**WHAT WERE THE BRIGADE, BATTLE GROUP, COMPANY AND SQUADRON BOUNDARIES ON THE 24TH OF MARCH 2003?**

30. The 7 Armd Bde Operations Trace dated 23 Mar 03, showed the Boundaries ending at the Canal, with an inter BG boundary between 1 RRF and 1 BW approximately 500m to the north west of the dual carriageway on the home bank. This was in order to place the Compound within B Coy 1BW's battle space.

Flag L-MJLL/1  
E-Extract

Flag D-c-P40

**WERE THERE ANY DEFICIENCIES?**

31. There was little warning of the change of task for B Coy to relieve Z Coy on Bridge 4. This reduced the time available for proper battle procedure to be conducted. The effect was that the up to date BG trace had not reached the individual sub unit or vehicle commanders before the task commenced.

Flag D-v-P101G  
D-w-129D  
D-z-P12C/  
8E

**TO WHOM WERE THE BOUNDARIES COMMUNICATED AND WERE THERE ANY CHANGES TO THE BOUNDARIES ON THE 24TH MARCH 2003?**

32. OC B Coy had not been briefed by radio on any new boundaries prior to giving his orders, and therefore the correct boundaries were not briefed to the crew commanders. OC B Coy did not see the Bde trace dated 23 Mar 03 until the O Group late on 24 Mar 03, when the new boundaries were already effective. The Board has been unable to determine what happened to any information gleaned from the trace on the OC's return to the Compound that evening.

**IF THERE WERE CHANGES TO THE BOUNDARIES TO WHOM AND HOW WERE THEY COMMUNICATED?**

33. The inter BG boundary was meant to change on the morning of 24 Mar 03 once the handover between Z Coy 1 RRF and B Coy 1 BW had been completed. OC B Coy was not aware of where this new boundary was and so made an assessment of where he thought it should be relative to his axis and the Canal. However, his assumption regarding his left boundary, i.e the Canal, was not briefed to B Company or troops from Egypt Sqn who were not aware of the inter BG boundary. It was clear that the dual carriageway into Basra was the Company axis. C/S I10 (2 RTR) states that he did not know what the boundaries were as they had not been communicated to him.

Flag D-aa-P14F

**WHAT BOUNDARIES WERE BRIEFED IN THE HANDOVER FROM Z COY OF 1 RRF TO 1 BLACK WATCH BATTLE GROUP**

## ON THE 24 MAR 03?

34. OC Z Coy, Major [REDACTED] briefed OC B Coy, Major [REDACTED] on the boundaries that Z Coy had been operating within during the period of his time around the area of Bridge 4. The left hand boundary between C Sqn QRL and Z Coy 1 RRF was half way between Bridge 3 and Bridge 4 with the Dam inclusive to Z Coy. The right hand boundary was the inter Bde boundary with 3 Cdo Bde, some 3 ½ kms to the south east. OC Z Coy states that these were the boundaries that he handed over. However, B Coy did not take over the same boundaries used by Z Coy, as OC B Coy considered that these had been set prior to arriving at Bridge 4 and were different to Z Coy's.

Flag D-d-P51  
D-z-P6B/  
9A-B

## WHAT BOUNDARIES WERE COMMUNICATED TO EGYPT SQUADRON OF 2 RTR?

35. No specific boundaries were communicated to OC Egypt Sqn. The Squadron was working in support of B Coy 1 BW, and therefore did not have its own boundaries within which to operate. Lt [REDACTED], the commander of C/S I10 (2 RTR) did not consider that there was a boundary in place.

Flag D-w-P152E

Flag K-qqq-P180

## WHY WAS THERE CONFUSION OVER BOUNDARIES?

36. Confusion was caused by three factors as follows:

a. Battlefield Geometry. The battlefield geometry had not been fully understood and, in particular, the status of the Shatt al Basra Canal as an LOE. There was a general concern in 1 BW BGHQ that no boundaries were marked to the east of the Shatt. The inter BG boundaries were not defined beyond this feature at this stage of the war as the area between the Canal and the FSSL was not intended to be a manoeuvre area. The road running out of Bridge 4 into Basra was never intended to be a BG boundary. It was not clear where OC B Coy's assumed left boundary along the line of the Canal ended, but the Dam was not inclusive. According to the 7 Armd Bde Ops Trace dated 23 Mar 03, the boundary was meant to be 500m to the north west of the Compound.

Flag M-ATC/03

Flag D-z-P26D&F/  
P31B

D-n-P237

D-b-P25

Flag D-c-P37

Flag D-c-P39

b. Frequent Changes to Boundaries. Boundaries changed frequently which meant keeping sub units fully informed of the latest iteration of boundaries and receiving them in time for a new task was inherently difficult.

Flag D-v-P101F-G

c. Interpretation of Map Marking Conventions. There was some difficulty in interpreting specific lines on the trace. C Sqn QRL erroneously interpreted ASR TOPEKA as the inter BG boundary following the dual carriageway on the east of the Canal towards Basra. In evidence, the SO3 G3 Plans from the Bde HQ stated that it was possible that this route, which is depicted as a thick black line on the map, could be mistaken for a boundary.

Flag D-a-P13-14

D-b-P20

Flag K-b-P2

## WHY WAS THE BOUNDARY CROSSED?

37. The inter BG boundary was crossed by C/S I10 (2 RTR) who erroneously fired back across the LOE into a friendly force area thinking that he was engaging a position on the enemy side of the Canal. If he had fired at a target on the enemy side of the Canal he would have been within OC B Coy's assumed boundary but outside his directed left of arc. The inter BG boundary was not crossed by B Coy 1 BW. Even though troops had not been briefed specifically on boundaries, the Company did not operate outside the intended left boundary as it appears on the Bde trace. The Company did conduct limited patrols along the western side of the Canal in an area where there were no boundaries designated.

Flag D-z-P8G

#### **WAS THE MAPPING ADEQUATE AND DID IT PLAY ANY PART IN THIS INCIDENT?**

38. Overall, the mapping was considered by most to be adequate in the circumstances. However, the Dam only appeared on the 1:50,000 map and was not considered along with the other crossings over the Canal during the planning phase at Bde level. Only those, including OC B Coy, who were using this map scale were aware of its existence, and it had not been generally briefed to the Company. If anybody within B Coy had identified this feature from their own map appreciation then it had not been raised as an issue. It seems that individuals at all levels were using different map scales, which had not been cross-referenced. Any information identified on the 1:100,000 map scale had not been passed on to all crew commanders so they could update the maps they were using, generally the 1:100,000 and 1:15,000 scale mapping, which did not depict the Dam.

Flag D-z-P46C  
D-w-P149D

#### **WHAT IS THE PROCEDURE FOR SETTING ARCS OF FIRE?**

39. The procedure for setting arcs of fire is that they are determined and briefed by the next higher commander<sup>7</sup>. In this case OC B Coy had taken over the arcs used by Z Coy 1 RRF, but these were to be confirmed by the Coy 2IC once across the Canal. These were then briefed down to the platoon and troop across the Bridge. When the Coy 2IC left the Bridge to return to the Compound this role was further delegated to 5 Platoon Commander who was then responsible for ensuring that the arcs were known by his platoon and the troop in support. There are no written orders or radio logs relating to the notification of the arcs of fire that have been seen by the Board.

Flag D-v-P86E

#### **WHAT ARCS OF FIRE WERE SET BY/FOR C/S I10 (2RTR) ON 24 MAR 03?**

40. The commander of C/S I10 (2 RTR) states that he had not been given a left of arc. He considered that he would fire around to the 8 O'clock position in exceptional circumstances but that he imposed a restriction of not firing back across the Shatt al Basra Canal, i.e. no further round than 9 O'Clock. Any further to the left than that would be for observation only.

Flag D-aa-P14E/  
P17B/P31A  
P32C+ G  
P33A+E  
P39F  
FlagK-ppp-P123

#### **WERE THESE COMMUNICATED, UNDERSTOOD AND**

<sup>7</sup> RAC Tactics Vol 1 Chapter 2 P2-14 Para 26.

**APPROPRIATE?**

41. It is the opinion of the Board that the commander of C/S I10 (2RTR) did not understand precisely the arcs he was meant to be operating within and had a different view to other crew commanders. The arcs that had been set by the Coy 2IC were deemed appropriate and in accordance with the tactical appreciation and the fratricide risk mitigation conducted by OC B Coy. Until the time of C/S I10's (2 RTR) arrival over the Bridge it is the view of the Board that there had been no indication of confusion or uncertainty about the arcs by any of the troops previously deployed.

Flag D-u-P47G/  
48A & D

**WHY WAS THE ENGAGEMENT OUTSIDE THE ARC OF FIRE?**

42. The commander of C/S I10 (2 RTR) did not appreciate from the briefings that he received that the left of arc was the left hand edge of the University Compound. This reference point was the generally accepted left of arc by the remainder of the Company and Squadron. C/S I10 (2 RTR) had assumed a left of arc of approximately 9 O'clock to the dual carriageway and so, from his perspective, notwithstanding his disorientation regarding the location of his target relative to the Canal, he did not consider that the two rounds were fired out of arc.

Flag D-aa-P39C

**TO WHOM AND HOW WAS THE POSITION OF C/S N11 AND N12 (QRL) COMMUNICATED?**

43. The position of C/S N11 and N12 (QRL) was notified to OC B Coy by the LO of C Sqn QRL, SSgt [REDACTED]. He had gone to the Compound to inform the OC that his troops were operating within C Sqn's boundaries. OC B Coy states that he passed the relevant information on the Company net. There are no written orders or radio logs relating to the communication of the position of C/S N11 and N12 (QRL) that have been seen by the Board.

Flag D-g-P103-4  
D-z-P32B/C

**WHY DID C/S I31 BRIEF THAT THERE WERE NO FRIENDLY CALLSIGNS WITHIN 3/5 KMS OF EGYPT SQN POSITION?**

44. The Board has been unable to verify whether C/S I31 (2 RTR) briefed C/S I10 (2 RTR) that there were no friendly callsigns within 3-5 kms of Egypt Sqn position. C/S I10 (2 RTR) states that this information was briefed at the VCP by C/S I31 (2 RTR) who had been sent following OC Egypt Sqn's O Group in the Compound, which he had missed. Cpl [REDACTED], C/S I12 (2RTR) states that there were no friendly forces within 5 km of Bridge 4, but he cannot recall whether it was C/S I31 (2 RTR) who briefed the troop. Prior to engaging with the first round C/S I10 (2 RTR) states that he asked Egypt Sqn HQ to confirm whether there were any friendly forces nearby and Sqn HQ referred this question to 1 BW BGHQ. A reply was still awaited when the incident occurred. Lt [REDACTED]'s level of situational awareness was such that he believed that there were no friendly forces nearby.

Flag K-qqq-P66

Flag D-r-P49E /  
P59D  
D-s-P76F  
Flag K-t-P2

**WHY WAS THE POSITION OF C/S N11 AND N12 (QRL) NOT KNOWN TO ALL 1 BW BG?**

45. The position of C/S N11 and N12 (QRL) was not known to all 1 BW BG. Specifically, it was not known to B Coy and Egypt Sqn, as it would seem that the information relayed by the LO from QRL had not been received by the Company or the Squadron.

#### **WHAT ARE THE CONTROLS FOR OPENING FIRE?**

46. It appears that, once the BGs had gone firm on the outskirts of Basra, fire control restrictions were imposed at varying levels of command. These were imposed to limit collateral damage, safeguard the lives of civilians being caught up in the fighting and prevent fratricide. B Coy 1 BW imposed a requirement for vehicle commanders to request permission to open fire from the 2IC or the platoon commander forward of the Bridge, who would then evaluate the situation and give authorisation as appropriate. However, the decision to fire a weapon requires a decision making process based on the information available and a judgement has to be made. The responsibility will always lie with the commander of that weapons platform.

#### **WHAT PERMISSION WAS SOUGHT TO OPEN FIRE BY C/S I10 ON THE 25 MAR 03?**

47. Having initially observed two and then subsequently four hotspots, Lt [REDACTED] requested permission to open fire over the radio to the Platoon Commander, initially, and then, because he could not be raised, from the WR Sgt.

Flag D-aa-P46A  
D-t-P24C  
D-u-P56B

#### **WHY WAS PERMISSION GRANTED?**

48. Sgt [REDACTED], C/S M12 (1 BW), could not see the targets through his II sight that C/S I10 (2 RTR) had observed, and therefore could not confirm whether they were enemy. Sgt [REDACTED] was looking towards the University Compound, whereas Lt [REDACTED] was looking far to the left of that on the banks of the Canal. Lt [REDACTED]'s report coincided with Sgt Donlon believing that he was under RPG attack. This led Sgt [REDACTED] to consider that the threat had risen and, as he could not raise the Platoon Commander to get a decision, he took the initiative and gave permission to Lt [REDACTED] to open fire.

Flag D-t-P23B /  
P25D

#### **WHAT PRECAUTIONS HAD BEEN TAKEN TO AVOID FRIENDLY FIRE?**

49. As he knew that there were friendly forces to his north in the area of Bridge 3, OC B Coy imposed a left of arc of the Compound within what he considered was his left boundary. In terms of practical application on the ground, the issue of boundaries was less than it might have been as no troops from QRL were deployed on the Basra side of the Canal and B Coy only had a small lodgement force. However, the arcs had not been formally co-ordinated between the two adjacent sub-units. By imposing a restricted left of arc within what he assumed were his boundaries, OC B Coy balanced tactical considerations with measures to mitigate the risk of fratricide. Once he had established that he could fire on the University Compound without interfering with the QRL tanks at the Dam he was content that the situation was under control and that, as

Flag D-v-P106H

the QRL tanks were some distance over to his left and outside his boundaries, he did not perceive there to be a problem.

### **WHAT TESTING HAD BEEN UNDERTAKEN WITH CIPS AND TIPS?**

50. Coalition policy stipulated that thermally reflective panels, Combat Indicator Panels (CIPS), 800mm x 600mm, should be placed on the sides and back of the vehicle. The reflective panels are a passive system, designed to be angled at 70° to the vertical, acting as a thermal mirror so that they reflect the colder sky temperature, producing a [REDACTED] when viewed through a TI sight. These panels could be turned on and off by sliding the panel out of its frame and rotating it through 180° so that the thermal reflective tape was facing the vehicle. During ATDU trials at Lulworth it was found that the CIPS were visible out to ranges of [REDACTED]. In additional tests conducted in the Gulf on 6 Mar 03, this range increased to about [REDACTED] due to the better thermal contrast in the desert and the improved thermal tape that was used.

Flag D-gg-P3  
K-zz-P1-2  
L-JRK/13  
J-Extract

51. Thermal Indicator Panels (TIPS). The TIPS are designed to aid air to ground observation and consist of 4 ft square orange panels that lie flat on the top of the vehicle. The Board's opinion is that TIPS played no part in this incident and are not considered further.

52. Infra Red (IR) Beacon. The IR beacon was an adapted bicycle lamp which, by means of a 180° transmitter, could be screened from the enemy. It was known that the enemy had Image Intensifier (II) sights, and so these beacons were generally switched off, although they could be switched on again as an immediate means of identification should the situation require it.

Flag D-gg-P10

### **WHAT TRAINING HAD THE TANK CREWS UNDERTAKEN WITH CIPS AND TIPS?**

53. Following the completion of the ITT live fire package, tanks deployed to a Kuwaiti Army barracks for the up armouring of CR2 and the fitting of Urgent Operational Requirements (UORs) which included the CIPS, TIPS, IR beacons and Thermal Exhaust Cowlings. Training on the CIPs consisted of being told how to switch them on and off by rotating the panels. Recognition training was on a self help basis with a CR2 deploying out to some distance so that the remainder of the Squadron could observe what CIPS looked like through their TI Sights. There were no problems identifying CIPs fitted onto an armoured vehicle and there was no significant degradation at greater ranges.

Flag D-aa-P7F / 8C

### **WHY WERE THE CIPS AND TIPS NOT RECOGNISED?**

54. It is the Board's opinion that, initially, C/S I10 (2 RTR) could not observe either of the QRL tanks as they were situated in a turret down position on the approaches to the Dam with the CIPS being obscured from view. The range to the QRL tanks was [REDACTED] and CIPs are effective at this range; evidence indicates that the CIPs were correctly fitted to C/S N11 and N12 (QRL). It is the view of the Board that C/S I10 (2 RTR) did not observe any part of C/S N12 (QRL) and so its CIPs were not visible.

Flag K-g-P1



The Board considers it unlikely that any CIPs were visible on the part of C/S N11 (QRL) that was exposed. C/S I10 (2 RTR) did not observe sufficient mass of C/S N11 (QRL) to enable accurate identification of the vehicle as a CR2 before opening fire. It was identified as an armoured vehicle, but as an enemy MTLB rather than a CR2.

Flag K-ppp-P150

#### **WAS THE THERMAL IMAGING SYSTEM ADEQUATE?**

55. The gunner of C/S I10 (2 RTR) reports that the TI sight was in good working order and the thermal picture was good.

Flag D-ee-17G

Flag K-tt-P2

K-ppp-P178

#### **WHAT TRAINING HAD BEEN UNDERTAKEN ON VEHICLE RECOGNITION?**

56. It is a mandatory requirement that troops undertake the AFV Recognition ITD on an annual basis, which according to the ITD record held by Egypt Sqn for the year 2002, shows that C/S I10 (2 RTR) did not complete that ITD.

Flag D-aa-P6A

Flag L-MRB/1

57. There were several deficiencies with the Unit Recognition Trainer on which the ITD and Pre-Deployment Training was delivered. It was not deployable, did not contain images of vehicles that have been up-armoured, or as viewed through a thermal imaging sight, or depicted in varying weather and light conditions, ranges or aspects.

58. These deficiencies were identified and urgent efforts made to procure a better training aid. This consisted of the Recognition of Combat Vehicles (ROCV) software procured from the USA. These aids contained images of a variety of NATO and Iraqi vehicles. However, there were some mistakes in the package, for instance the Challenger that was depicted was a CR1 and not a CR2 and it did not show the CR2 with the CIPs and Exhaust Cowlings fitted or in its uparmoured state. A total of 75 laptops were procured for use as a stand alone computer-based training aid. These laptops were dispatched on 18 Feb 03, and 47 were issued to the Land Component. The scale of issue was intended to be one per sub unit. Some of these laptops had arrived by 15 Mar 03. Lt [REDACTED] does not recall having access to this system.

Flag M-RQJS/1

Flag D-aa-P6E / 7E

59. These laptops were complemented by 4000 Combat ID Aides Memoire, of which 2300 were issued to the Land Component. This was an A5 printed handout taken from the ROCV package, and intended to be issued on a scale of 200 per major unit. These were dispatched to the Gulf on 17 Mar 03. There was uncertainty as to whether these items ever reached their intended recipients. Both Lt [REDACTED] and LCpl [REDACTED], the gunner of C/S I10 (2 RTR), state that they did not see the A5 booklet until after the incident.

Flag M-RQJS/2

D-aa-P6E

D-ee-P25E

#### **WAS THE AMOUNT OF AFV RECOGNITION TRAINING ADEQUATE?**

60. The Unit Recognition Trainer (URT), especially from a thermal imaging point of view, was deemed insufficient for the specific mission in Iraq, which was why the US ROCV package was procured. The ROCV package arrived too late to play an instrumental part in AFV Recognition training.

**WHAT DAMAGE WAS CAUSED TO C/S N12 (QRL)?**

61. QRL C/S N12 was severely damaged. Dr [REDACTED] from DSTL, states in his Report that there is evidence of an explosion above the commander's hatch opening, causing blast and fragment damage to the turret roof, and to the side and rear bins. The cupola and loader's hatch lid were both detached from the turret. There is clear evidence of a massive explosion inside the vehicle that caused the turret, the hull floor under the driver and crew stations and some forward suspension mountings to be detached. The turret was blown off the turret ring landing on the engine decks with the gun facing forward.

Flag O-TJP/1  
Page 5 para 4.1 &  
Page 6 para 4.10

**HOW MANY ROUNDS WERE FIRED BY C/S I10 (2RTR)?**

62. The engagement logs of both C/S I10 and C/S I12 (2 RTR) have been checked. I10 fired 2 x HESH rounds and I12 did not fire.

Flag L-CGH/1

Flag D-h-P118  
P/119/137  
K-h-P4  
K-u-P3  
K-bb-P3  
D-u-P60D  
L-DAC/2  
K-iiii-P7

**DID THE HESH ROUNDS FROM C/S I10 (2RTR) STRIKE C/S N12(QRL)?**

63. It is the Board's opinion that of the two HESH rounds fired from C/S I10 (2RTR), the first round landed close to the two QRL tanks and the second round struck C/S N12 (QRL) on the commander's hatch initiating a chain of events which resulted in the catastrophic destruction of N12.

**WHAT CAUSED THE DAMAGE TO C/S N12 (QRL)?**

64. Initial Professional Views. The initial investigating officer from the Maintenance Support Group (Iraq) stated that, in his view, the damage above the turret ring was caused by a secondary explosion probably initiated by the charge bins and HESH rounds exploding. Maj [REDACTED] the Senior Ammunition Technical Officer (SATO) also inspected the vehicle and saw evidence of splash marks and pitting on the inside of the cupola ring and considered that these were consistent with the amount of damage likely to be caused by an RPG warhead functioning or a high velocity fragment or from fragments from munitions in the vehicle. However, he did not explicitly state that an RPG destroyed the tank, although he stated that, in his view, it was possible that enemy could have crossed the Dam out of sight of the two QRL tanks and engaged them from 80m with shoulder launched weapons.

Flag L-CGH/1 P11  
Para 4  
Flag L-CGH/1  
Encl 1  
Flag D-e-P71-76  
N-a-P4G/P5A  
O-JRTB/1

Flag N-a-P8C

65. Expert Opinion by Dr [REDACTED] OBE (DSTL). Dr [REDACTED] investigated the tank in its specially constructed hangar at Eskmeals Range on 7-8 Jun 05 and subsequently submitted a Report in evidence. He states that the damage observed in the turret roof area is consistent with a single, near horizontal, strike by a large calibre high explosive projectile hitting the front of the commander's raised hatch lid. The projectile was fired from a direction approximately 40° to the right of the turret centre line. This damage is consistent with a single strike by a UK 120mm HESH projectile, which would have been instantly fatal to

Flag O-TJP/1  
P7 para 5.1

Flag O-TJP/1  
P7 para 5.1

crewmembers in or on the vehicle. In his opinion, the fact that the commander's hatch lid has not been recovered tends to support the argument that it was broken into pieces and propelled behind the vehicle. He conjectures that hot fragments from the projectile strike penetrated the thin outer casings of the HESH projectiles stowed on the turntable on the turret floor beneath the gun which then burnt fiercely over a period of several seconds. This caused the charges to deflagrate violently which initiated an explosion involving all the remaining explosive ammunition and charges in what, he states, would have been a highly visible event. The subsequent explosion from the ammunition cooking off caused the turret to be blown backwards onto the engine compartment. Most of the damage to C/S N12 (QRL) was caused by the explosion of internally stowed ammunition and the subsequent vehicle fire. In the opinion of Dr [REDACTED], the damage to the turret roof area could not have been made by an RPG, cannon fire or small arms. He considered the possibility of a mortar strike but the fragment damage indicates a near horizontal attack. He found no evidence of weapon strikes on the hull as the side armour packs were found to be in good condition following the incident with only minor distortion due to blast.

Flag O-TJP/1  
P7 Para 5.4  
P7 para 5.1 & 5.2

#### **WHAT DAMAGE WAS CAUSED TO C/S N11 (QRL)?**

66. The Board has found no evidence of a Damage Report being raised for C/S N11 (QRL) as it is believed that there was little or no damage to the tank. Sgt [REDACTED], the tank commander stated that the damage caused was cosmetic and repaired in theatre at the time. The right hand side of the turret was scarred as was the right tool bin and all of the back decks with the gun crutch being blown sideways. The tank was recently inspected by HQ LAD QRL which confirmed that there was no remaining evidence of damage caused by the round.

Flag D-l-P137

Flag D-h-P137  
L Exhibit JRK  
13 Part III P10-15  
Flag O-j-Exhibit  
SC/1

#### **CAUSES OF THE INCIDENT**

67. Oversight in Planning. The Bde staff were not aware of the existence of the Dam in the planning phase; it was not discovered until the first troops of 1 RRF BG arrived on the ground on 22 Mar 03. The available aerial photography did not show the Dam. Neither does it appear on the 1:100,000 scale mapping, which was the mapping used by Bde HQ, and was not included on any traces. Although the issue of the Dam was discussed at Bde HQ on 23 Mar 03 between the Operations Officers of 1 RRF and 1 BW, it does not appear on the trace dated that day. Due to the pressures of rapid planning, the Dam, which was so close to Bridge 4 and, arguably, had a direct bearing on its security and was within battle range of integral weapon systems, was not allocated to B Coy 1 BW BG on Bridge 4 as it had previously been to Z Coy 1 RRF. The Dam is shown on the 1:50,000 mapping which OC B Coy used. However, this was not briefed in his orders to other members of B Coy whom, it appears, were not working off this scale. Although the Dam could be seen from Bridge 4, most of the troops passing over this Bridge would have had limited observation being closed down and many of them only went across in times of darkness. OC B Coy considered that the Dam was outside his boundaries, and did not affect his operations on Bridge 4 from a tactical perspective and so none of his plans took it into account. It is the Board's opinion that the domination of this feature and

Flag D-d-P61  
D-v-P98D

D-o-P249

Flag D-z-P14F

Flag D-w-P141D/  
154A

Flag D-z-P16A

Flag K-qqq-P58

the wider battlespace had not been co-ordinated in sufficient detail between BGs and between sub-units.

68. Passage of Information. There was a failure to pass on essential information.

a. 1 BW BG Boundaries. The opinion of the Board is that the change of boundaries between 1 RRF and 1 BW had not been communicated effectively to B Coy 1 BW. Maj [REDACTED] took his boundaries from a previous trace, the latest one of which he had had sight, and assumed his left boundary was the line of the Shatt al Basra Canal. The Canal was an LOE, a clearly recognisable control measure and boundaries forward of this feature had not been established. In addition, ASR TOPEKA had been interpreted by some from the trace, mistakenly, as a boundary. The new inter BG boundary placed the Dam outside the B Coy AO and inclusive to C Sqn QRL. At the time of the handover between OC Z Coy 1RRF and OC B Coy 1BW, neither knew about the exact detail of the boundary change or had received the new trace dated 23 Mar 03. OC B Coy and OC Egypt Sqn were not aware of the inter-BG boundary between themselves and 1 RRF, 500m away to their north west. This misunderstanding was not rectified by radio orders or the dispatch of an LO from BGHQ. Maj [REDACTED] states that there was still confusion surrounding the issue of boundaries following the Orders Group on 24 Mar 03 and that there had been difficulty interpreting the lines on the trace accurately. It is the Board's opinion that greater efforts should have been made by both BGHQ and Coy HQ to ensure that B Coy's boundaries were clearly understood, especially as its left boundary was an inter BG boundary.

b. B Coy 1 BW Boundaries. The orders given by OC B Coy to his crew commanders did not contain an explanation of his assumption over the left boundary and the reason for imposing the western edge of the Compound as the left of arc. This was to reduce the risk of fratricide as he had no information on the exact left boundary with the adjacent unit, but had narrowed his arcs in order to provide an additional safety margin. It is the Board's opinion that this information should have been given to all troops before they commenced their task.

c. Location of QRL Tanks at the Dam. OC B Coy was aware of the existence of the two tanks at the Dam, having been informed by the QRL LO. Having received this information, Maj [REDACTED] assessed that the situation had not changed as there were no QRL troops forward of the Canal, his left boundary and left of arc were still valid and had no need to be adjusted, and the enemy threat was still from the main axis. He states that the information concerning the QRL tanks was passed specifically to the 2IC's vehicle on the Company radio net. Capt [REDACTED] does not recall receiving this message. There is no evidence that troops in the Compound were aware that friendly forces from another BG were less than 1500m away. The locations of the QRL tanks had not been marked on a central company operations map, recorded in the

Flag D-z-P9A-D  
&G

Flag D-d-P51

Flag D-z-P11G  
&12A

Flag L-LRM/1

Flag D-aa-P14D

Flag D-z-P32A/33F  
K-q-P3  
D-z-P32C/33C  
D-v-P105A-B

radio log or disseminated with the rigour that was required to ensure the necessary acknowledgement. It is the Board's opinion that C Sqn QRL had done all that could have been reasonably expected in the circumstances to inform B Coy as to the location of the two tanks and their orders. This critical information, if disseminated, was not done so in a structured manner.

69. Command and Control. The issues relating to command and control are considered to be as follows :

a. Split Coy HQ. As 2IC of the Coy, Capt [REDACTED] was responsible for providing the rear link to BGHQ but, for sound reasons, the Company Commander decided that the 2IC would act as the commander of the lodgement forces across the Canal. The effect of this was that he did not have sufficient time to confirm points of detail or co-ordinate the battlespace with BGHQ and was unable to keep up with the boundary changes. This situation was compounded by the fact that communications with BGHQ were not good and messages had to be relayed through the VCP. This arrangement could not be sustained, as the 2IC needed to return to the compound to command the Company when the OC attended the BG O Group on the evening of 24 Mar 03. A true Coy CP was not established until the 2IC arrived back at the end of his 19 hour task for some rest. Radio logs were not maintained accurately with sufficient detail, as the Coy CP was precluded from carrying out its functions effectively. It is the view of the Board that, although the OC made a legitimate decision to deploy the 2IC forward of the Bridge, this had a detrimental effect on the overall ability of the Company to receive, collate and disseminate information to the troops effectively.

Flag D-v-P76B-E

Flag D-z-P35G  
Flag D-v-P85D

Flag D-z-P38D-E  
D-z-P32D/37E  
D-u-P103C-G

Flag D-v-P76C

b. Lack of Unity of Effort on the Bridge. Although the troop and platoon rotations were not coincident, the command and control arrangements between the two had been clearly defined. Following the handover of the lodgement from the Coy 2IC to OC 5 Pl, firm command and control of the lodgement troops was not maintained and briefings were not conducted with as much structure or thoroughness as they had previously been. In the opinion of the Board, the effect was that the two elements, that of the infantry platoon and the armoured troop, became quite disparate and failed to act in a unified manner.

Flag D-r-P42G  
D-u-P45H  
D-aa-P18D  
D-t-P14E  
D-x-P177A

c. Lack of Co-ordination. The HQs of B Coy and Egypt Sqn were co-located in the Compound and situated less than 20m apart, although Capt [REDACTED], Egypt Sqn Battle Captain, states that he doesn't recall exactly where B Coy HQ was situated. Prior to the incident C/S I10 (2 RTR) had not been able to establish communications with either OC 5 Pl or the Coy HQ, but had good communications with Egypt Sqn HQ. C/S I10 (2RTR) had spoken to the latter requesting information about locations of friendly forces and to clarify the inter BG boundary on the left. This request, although passed up to BGHQ, was not passed to B Coy HQ in the compound which was co-ordinating the battlespace and in command of the armoured troop deployed over the Canal.

Flag D-w-P118E &  
125G  
Flag N-e-P5

As such they should have been the HQ to co-ordinate a response and assist the commander of C/S I10 (2 RTR) in his decision making process. However, the Coy HQ could not be contacted at that time by Egypt Sqn HQ and Capt [REDACTED] states that Lt [REDACTED] had given no clear indication in his radio messages that he was intending to engage a target. His request was viewed as seeking general clarification of the situation but Coy HQ was not informed. At this time the BG and Egypt Sqn were planning an attack on Az Zubayr which was due at 0230hrs 25 Mar and took place as scheduled shortly after the incident. However, the opinion of the Board is that greater co-ordination and co-operation could have been achieved between the Squadron and the Company to collate tactical information and clarify issues with BGHQ to ensure a common battle picture.

Flag N-e-P6&8

Flag N-e-P8

Flag K-zzz-P3

Flag K-qqq-P31  
K-t-P2

70. Lack of Situational Awareness. The factors that contributed to an overall lack of situational awareness are considered to be as follows:

a. Insufficient Tactical Briefings. There was an assumption of knowledge and a lack of enduring thoroughness in the conduct of tactical briefings and handovers of positions as the task on Bridge 4 proceeded. The effect was that any tank troops deploying over the Bridge for the first time did not receive a full ground briefing from the B Coy Officer in Charge. However, prior to the incident Capt [REDACTED], OC 5 Pl, did not think that there was any confusion regarding arcs of fire and target reference points. Following the initial orders there was no requirement for any of the troops deploying over the Bridge to receive formal briefings in the Compound about the enemy situation, arcs of fire and boundaries. There was no central operations map for depicting the up to date tactical information and battle picture from which troops deploying over the Bridge, or indeed to the VCP, could be briefed. Whilst the brief on Bridge 4 was an essential component of an effective handover, total reliance was placed on it and opportunities for a formal brief in the Compound were not taken following on from OC B Coy's orders. Thus, any misunderstandings about the enemy threat, arcs of fire and target reference points could not be identified and rectified or critical information passed on. There was a clear imperative to co-ordinate the tactical details between the infantry platoon and armoured troop and it is the opinion of the Board that a more thorough briefing procedure should have been instigated. This would have enabled relevant information to have been disseminated and ensured a common level of situational awareness. This was especially important as there were assigned troops from outside the Company being deployed in support who had not been at the initial Orders Group and whose handover and briefing cycle were not coincident with the infantry's.

Flag D-u-P46E

Flag D-u-P48A

Flag D-v-P84H&  
P85A

Flag D-u-P51E

b. Lack of Inquisitiveness. There was a general lack of inquisitiveness which meant that key pieces of information such as boundaries and the location of flanking units were not clarified with BGHQ or Coy HQ. The situation was accepted as it was found; lack of experience and an assessment that the necessary briefings had already been given by members of Egypt Sqn did not

Flag D-aa-P17G/  
18A-C

induce C/S I10 (2 RTR) to do otherwise. Therefore the task was commenced with inherent misunderstandings.

c. Disorientation by C/S I10 (2 RTR). The Board finds that there was an inaccurate orientation of the map in relation to the Gun Position Indicator (GPI) and the range return from the Laser Range Finder. Although the commander of C/S I10 (2RTR) states that he knew where he was looking at all times, if he had plotted the data accurately, it would have shown that, in the direction that the gun was pointing, the target would have been on the friendly, rather than the enemy, side of the Canal. C/S I10 (2 RTR) was in a static position engaging a static target with some easily recognisable features around to aid accurate orientation. Lt [REDACTED] knew that the pylon line ran along the line of the Canal from Bridge 3 to Bridge 4 and accepts that there may have been a degree of disorientation in relating his map to the direction of the gun, but never considered that he was firing back across the Canal onto the friendly side. The grid of the QRL tanks was QU 646719 at the western end of the Dam and the grid which Lt [REDACTED] thought he was engaging was QU 649719, There was a difference of some 300m between the supposed enemy location and the actual location of the two QRL tanks. It is the view of the Board that this disorientation should have been overcome within the 30 minutes that elapsed between the initial observation of the target and when the tank opened fire with the first round at the suspected bunker.

d. Incorrect Assessment of Enemy Threat. C/S I10 (2 RTR) states that he was briefed that the enemy threat was from the left flank, although this is disputed. According to his evidence, he was expecting to see dismounted RPG teams in this area, and when the hotspots were observed they conformed to what he asserts he was briefed, but outside a range that posed an immediate threat. Similarly, when the vehicle appeared it was assumed that it was an Iraqi one. Although, the use of the Dam by enemy forces was not ruled out, the only reports of activity in that area during the day had been of civilians. The main threat to the Company had been assessed as from the direction of Basra within the generally accepted arcs of fire. The opinion of the Board is that the identification of enemy far over to the left flank should have warranted more rigorous interrogation and corroboration.

71. Incorrect Target Identification. Initially, C/S I10 (2 RTR) observed some hotspots which he considered were people moving about on top of a bunker; but these were discounted as being civilians. It is the opinion of the Board that the crew did not complete the target identification process on positively identifying the hotspots as enemy<sup>8</sup>. Following the firing of the first round at the hotspots, C/S I10 (2RTR) observed an armoured vehicle moving in the vicinity of the first contact. The vehicle was incorrectly identified as an MTLB rather than as a CR2.

72. Tactics, Techniques and Procedures.

Flag D-aa-P39G/  
41A/42C/43F/50D  
Flag K-qqq-P133/  
P134

Flag K-qqq-P103

Flag D-aa-  
P81C/D/E  
Flag K-qqq-  
P83/134/136/175  
Flag L-SJC/1

Flag D-dd-P4

Flag D-z-P14G /  
34B

Flag D-z-P27G  
D-aa-P14E  
P19F/G

Flag K-t-P2

Flag D-ee-P13F

<sup>8</sup> RAC Vol 1 The Armoured Sqn Ch2 P 2-13, para 24c.

a. Tactical Skills and Drills. The BG's ability to prevent fratricide relies on an understanding of basic, simple and well rehearsed drills, in this instance that of a detailed handing over of a tactical position. There was a failure to carry out these low level military skills. It is the opinion of the Board that confusion over issues of fire control and discipline, arcs of fire and target indication<sup>9</sup> would have been reduced had the correct drills been used.

b. Range Cards. A Range Card was neither handed to, nor used by, C/S I10 (2RTR). Most of the crew commanders interviewed stated that they marked the relevant information on their own maps, which could not be passed on to another C/S. It is the opinion of the Board that the lack of accurate situational awareness of C/S I10 (2 RTR) could have been ameliorated by the handing over of a comprehensive Range Card.

c. Arcs of Fire. There was a misunderstanding by the crew of C/S I10 (2 RTR) as to the arcs of fire and the enemy situation, which was not generally shared amongst the other troops forward of the Bridge. Arcs had not been co-ordinated between the troop and the platoon, and C/S I10 (2 RTR) considered that his arcs permitted a line of fire that would take a round into friendly force areas and behind the Canal as an LOE. It is the opinion of the Board that, had greater efforts been made to co-ordinate arcs between the Troop Leader and the Platoon Commander, any misunderstandings could have been rectified.

d. Confusion over Target Indication. There was confusion over the exact target indication that was given. Irrespective of whether 'truck' or 'river line' was used, the effect was that the WR Sgt thought that C/S I10 (2 RTR) had spotted enemy in the area of the Compound which, together with his belief that he was under RPG attack, induced Sgt [REDACTED] to give authority to open fire. Capt [REDACTED] states that he did not know the location of the target that C/S I10 (2 RTR) was engaging, and that if he had known that the target was outside the set arcs of fire he would have requested permission to engage from Coy HQ. The Board's opinion is that this confusion would have been reduced had there been detailed co-ordination of target reference points.

e. Incorrect Tactical Reporting. C/S I10 (2 RTR) identified the hotspots and reported them over the Company radio net. Any reports that were sent before or during the engagement did not include a grid. A grid reference was sent in the final Contact Report. It is the opinion of the Board that the lack of a grid reference of the target led to a critical misunderstanding of where the supposed enemy was located, making accurate target identification by other callsigns impossible.

f. Liaison. There was no clear identification of BG and sub

Flag D-aa-P30C

Flag D-aa-P18D

Flag D-aa-P34A/  
39C/73A&C  
Flag D-aa-P15H/  
P16A/ P33D

Flag D-aa-P34C-E  
I-AC7  
D-aa-P45B/C

Flag D-aa-P29D-30  
Flag D-u-P65D

Flag D-u-P59C&G

Flag D-aa-P41E  
D-aa-P48E/F

<sup>9</sup> Land Component Handbook Unit SOP's P 6-3-2 Tactical Skills, P6-29-1 Relief in Place.



unit boundaries or effective co-ordination between the adjacent sub-units. The QRL liaison resulted from an urgent need to deconflict battlespace, but prior to this there had been no exchange of information as to the locations, or intended movement of friendly callsigns or detailed co-ordination of arcs of fire which could have been briefed to troops. In B Coy, there was a reluctance to conduct lateral liaison due to the unprotected vehicle provided for the LO. It is the opinion of the Board that there should have been a systematic conduct of cross boundary liaison and de-confliction.

Flag D-z-P41B/ 44F

73. 'Fog of War' and Fatigue. Troops had been living in uncomfortable surroundings for some weeks in hot weather conditions and were fatigued, but not exhausted. Troops had had little sleep in the previous 4 days and in particular since the movement across the Iraqi border. The tactical situation was not frenzied, but the enemy picture was far from certain as there was an uncleared area behind the forward line. There was a degree of apprehension and anxiety about the next phase of the battle and casualties had started to be taken. The threat of armour attacking down the main road to Bridge 4 was taken seriously as was the dismounted threat from RPG teams, but troops were confident that both could easily be dealt with. The threat level was high but enemy activity had been contained and had posed no significant threat to the forces on the Bridge and overmatch had been achieved. The terrain had the well defined linear features of the Canal, electricity pylons and the dual carriageway, all of which acted as good aids for navigation and orientation. The distinctive wall of the University Compound provided for clear reference points both visually and thermally. It is the Board's opinion that troops had endured a sustained tempo of operations for a protracted period of time and were weary. However, they were in command of the operational situation and the incident occurred during a relatively static, although volatile and confused, phase of the war.

Flag D-v-P102D-E  
D-u-P52B/66B  
K-u-P1  
D-b-P32

Flag D-aa-P19D-G  
D-ee-P18C/D

**THE FACTS THAT IN THE OPINION OF THE BOARD HAVE BEEN ESTABLISHED BY THE EVIDENCE**

74. Boundaries changed when 1 BW took over from 1 RRF. The LOE was the Shatt al Basra Canal, and there were no inter BG boundaries plotted forward of this feature.

Para 3a/6  
Flag D-b-P21  
D-c-P34  
D-o-P243-245  
D-a-P7-8

75. The Dam is not marked on the 1:100,000 or 1:15,000 mapping available, but the feature appears on the 1:50,000 map as a Concrete Dam. The existence of the Dam was not discovered until troops first arrived on the ground.

Para 66  
Flag F Extracts  
JRK10-12  
GLCR 1&2  
Flag D-d-P59  
K-b-P2

76. The Dam was originally in Z Coy 1 RRF Area of Operations.

Para 5C(2)  
Flag D-d-P55

77. The 7 Armd Bde Trace dated 23 Mar 03 was the last iteration prior to the incident on the 24 Mar 03. The Dam does not appear on this Trace.

Para 67a  
Flag D Para 65  
Flag L-KG/1-a-P6

78. The 7 Armd Bde Trace dated 23 Mar 04 was not seen by OC B Coy until 24 Mar 03. Dispositions were not changed as a result.

Para 32  
Flag D-z-P8E

79. C Sqn QRL interpreted the dual carriageway as an inter BG boundary, and B Coy 1 BW considered it their company axis.
80. Both OC B Coy 1 BW and OC Z Coy 1 RRF agree that the left of arc was the left-hand edge of the University Compound. B Coy also carried out another assessment of arcs once the takeover was complete and confirmed this left of arc.
81. OC B Coy was aware of the Dam, but did not mention this or any detailed information regarding boundaries in his orders to his Company and 10 Troop of Egypt Sqn.
82. The existence of the Dam was not generally known throughout the Company and Squadron prior to the incident.
83. OC B Coy knew about the existence of the two QRL tanks at the Dam, as he had been briefed by the LO of C Sqn QRL.
84. There was a clearly defined 'clearance to fire procedure' where call signs had to request permission to open fire forward of the Shatt.
85. Sgt [REDACTED] copied the most up-to-date trace from the 2IC of C Sqn QRL prior to moving down to the area of the Dam to join Cpl Allbutt.
86. Troops did not have to report to the Coy HQ in the compound prior to taking up position on the east side of the Bridge. Briefings took place over the Company radio net.
87. The area where the 2 QRL tanks were located was visible from the wall of the compound where B Coy and Egypt Sqn were based.
88. The location of C/S N11 & N12 C Sqn (QRL) was not known to the remainder of the Company / Squadron group.
89. There does not appear to have been any obvious indication of uncertainty or confusion over the arcs of fire prior to C/S 10 (2RTR) taking over the position.
90. Lt [REDACTED] sought clarification of his left boundary and the location of friendly forces from Egypt Sqn HQ prior to the incident.
91. The CIPs mounted on C/S N11 (QRL) were not identified by C/S

- Para 36C  
Flag D-h-P125  
D-z-P16D/30E  
L-KG/1
- Para 5d(2)/8/49  
Flag D-d-P54  
D-z-P22G  
K-r-P2
- Para 67a  
Flag D-z-P14F/22B  
D-n-P220  
D-t-P6A  
L-LRM/1
- Para 67a  
Flag D-aa-P21D  
D-r-P48C  
D-v-P70F  
D-w-P137G  
D-x-P185G  
D-cc-P3
- Para 67c  
Flag D-z-P30A
- Para 46  
Flag D-v-P95A  
K-r-P2
- Para 12  
Flag D-h-P116
- Para 15  
Flag D-z-P21D
- Para 13  
Flag D-d-P50  
D-g-P104  
D-aa-P83H  
D-z-P15D  
K-q-P4
- Para 67c  
Flag D-aa-P35G  
D-u-P44G  
D-x-P186C  
K-r-P3
- Para 41  
Flag K-r-P3  
D-u-P38-39  
K-bb-P2
- Para 44  
Flag D-w-P147G  
D-aa-P46B  
K-t-P2  
N-e-P8&9
- Para 54

I10 Egypt Sqn (2RTR), and it was not identified as a CR2.

92. According to the Fire Control Log, C/S I10 (2RTR) fired 2 HESH rounds.<sup>10</sup> These were noted on the 1 BW log as 0122 hrs and the other 6 minutes later.

### THE OPINION OF THE BOARD IN RELATION TO CONFLICTS OF EVIDENCE

93. Handover of the Dam. OC Z Coy 1 RRF states that he handed over responsibility of the Dam; this is refuted by OC B Coy 1 BW. Maj [REDACTED] did not regard the Dam as being in his battle space. The Board is of the opinion that there was no intention for B Coy to take over the exact boundaries within which Z Coy had been operating. It is the view of the Board that, although OC Z Coy would have conducted the handover within the context of his Company's current boundaries, Maj [REDACTED] arrived at the Relief in Place with different assumption about his Company's boundaries. He understood that his left boundary was the line of the Canal running away to the north-west, having taken this from a previous trace. As it was, C Sqn QRL took responsibility for the Dam as part of the re-allocation of responsibilities and in accordance with the new boundary trace, although C Sqn misinterpreted their right boundary as being the dual carriageway running into Basra.

94. Arcs Of Fire. These were generally understood to be from the left hand edge of the University Compound to the waste ground 3 O'clock of the road. Lt [REDACTED] states that he was not given arcs of fire. Lt [REDACTED] received a briefing from Sgt [REDACTED] in the Compound at which Sgt [REDACTED] states that he gave the left of arc as the western corner of the University Compound, and the right of arc as an area of waste ground about 2 O'clock from the road. Lt [REDACTED] does not recall this and states that he was not given a left of arc by Sgt [REDACTED]. Once on the eastern side of the Canal, Lt [REDACTED] received a briefing from Cpl [REDACTED] over the radio from the northern fire position. Cpl [REDACTED] states that he gave the left of arc as the left-hand side of the University Compound, but Lt [REDACTED] states that no left of arc was given to him and does not appear to have questioned this lack of information. It is the opinion of the Board that the left of arc (left hand edge of the Compound) was clearly understood by all the crew commanders of B Coy and Egypt Sqn who had previously deployed over the Bridge. This had not changed prior to the commencement of Lt [REDACTED]'s task. Following the incident the arcs were re-confirmed by the Coy 2IC and they did not change from those previously briefed. On the balance of probabilities, the Board is of the opinion that the correct arcs were briefed by Sgt [REDACTED] and Cpl [REDACTED].

95. Enemy Threat and Target Indication. Lt [REDACTED] and Sgt [REDACTED] state that C/S I10 (2 RTR) gave the target indication as 'Truck', which was located near the compound. Lt [REDACTED] states that he did not refer to the target as 'Truck' but gave a description as 'on the banks of the river'. Lt [REDACTED] states that when he reported the hot spots over to the far left of his arc he says that Sgt [REDACTED] reported that this accorded with

Flag K-qqq-P33  
D-aa-P52A-B  
Para 19/62

Flag L-DAC/2

Flag D-d-P55/59/63  
D-z-P15B/17C

Flag D-z-P9A/D/G

Flag D-aa-P24D  
D-n-P220  
D-v-P80D-E  
D-z-P23B  
D-aa-P14D  
D-l-P171/184  
D-r-P45D  
K-ff-P2

Flag D-aa-P17B  
D-cc-P22  
D-aa-P31B

Flag D-v-100A

Flag D-aa-P42A/  
43H/44A  
K-aa-P1  
K-qqq-P164  
D-u-P56G-H/

<sup>10</sup> The FCC clock was 3 hrs 50 min slow.

the enemy activity in that area. If that was the case, then Sgt [REDACTED] would not have been confused over the direction in which he should be looking and to which Lt [REDACTED] was referring. It is the opinion of the Board that Sgt [REDACTED] believed that the main threat was from the area of the University Compound with the enemy attacking up the dual carriageway to Bridge 4. This view of the enemy threat was not shared by Lt [REDACTED]. It is the opinion of the Board that, since target reference points had not been co-ordinated between the troop and the platoon and the tactical reports did not contain a grid reference, confusion ensued when a target appeared to C/S I10 (2 RTR). It is the view of the Board that no precise aids to target identification were given which could have avoided any misunderstandings.

57A-B  
D-t-P23C

Flag D-t-P27C

96. Existence of the QRL Tanks at the Dam. Maj [REDACTED] states that, following his meeting with SSgt [REDACTED] concerning the location of the QRL tanks at the Dam, this information was passed on by him over the radio to the remainder of the Company from his vehicle as he left for the BG Commander's Orders Group. However, the 2IC cannot recall receiving this message. The fact that the nearest friendly forces to the B Coy position were two QRL tanks approximately 1400m away was not known throughout the Company who thought that the nearest friendly forces were on Bridge 3 to their north. This message was critical to the situational awareness of the Company and pivotal to this incident. It is the opinion of the Board that the information concerning these tanks was not disseminated nor confirmed that it had been received with sufficient rigour.

Flag D-z-P32C

Flag D-v-P105B-D

97. Confirmation of Location of Friendly Forces and Boundaries by C/S I10 (2 RTR). C/S I10 (2RTR) requested clarification of his left boundary and the location of friendly forces prior to engaging but, according to the Egypt Sqn Battle Captain, Capt [REDACTED], the incident occurred before a reply was given by BG HQ or by him to C/S I10 (2 RTR). However, Lt [REDACTED] states that he had received a reply from Sqn HQ that there were no friendly forces to his north and that he had been briefed to that effect before he commenced his task, although it is unclear by whom. Capt [REDACTED] states that the enquiry from Lt [REDACTED] gave no indication that he had identified a potential target through his TI sight and that it seemed more a general clarification of boundaries and location of forces. It is the opinion of the Board that, in his view, Lt [REDACTED] considered that the enemy was on the eastern side of the Canal and that there were no friendly forces for 3kms and so had all the information he needed to initiate the engagement.

Flag N-e-P14&16

Flag N-e-P7&8

98. Sequence of Events at The Dam. There is a great deal of confusion surrounding the sequence of events at the Dam due to the wide variation and lack of consistency in the evidence. It is suggested that the events that occurred at the Dam were violent, frightening and traumatic and outside people's previous experience. Therefore it is unsurprising if people's recollection is confused, with events perhaps being remembered in a sequence different to that which actually occurred. The effects of blast and noise from the exploding HESH rounds would have had a debilitating effect of those in the immediate vicinity which has made it very difficult for the witnesses to make sense of events and their juxtaposition. It is to be expected, therefore, that there may be

Flag D-j-P161

contradictions in the evidence. The Board has found it difficult to establish with complete veracity the exact sequence of events but, in order to arrive at its opinion, has analysed and sought to corroborate evidence from witnesses both at the Bridge and the Dam, the technical report from Dr ██████ concerning the damage to C/S N12 (QRL), and the information from the FCC of C/S I10 (2 RTR).

99. Timing of Events. Sgt ██████ is certain that there was a very short interval, as little as 30 seconds, between the first and second rounds, as he perceives them, and then a few minutes until the third round which hits his tank. The actions that the crew of C/S N11 describe as occurring within this 30 seconds are Sgt ██████ being set on fire, stripping off his clothes and entering the turret; LCpl ██████ being thrown from the tank, coming to and getting on only to find that Tpr ██████ who had been on watch from the loader's position trying to shut the Loader's hatch; LCpl ██████ getting into the loader's position and handing Sgt ██████ his headsets; Tpr ██████ crawling under the gun to get into the driver's seat and starting the engine; Sgt ██████ reporting that he had been contacted by what he thought was artillery, and then looking through his episcopes to see the second round strike the commander's hatch of C/S N12 (QRL). From the evidence, it is clear that Sgt ██████ also reversed away from C/S N12 (QRL) in order to be able to use the weapon systems and which prompted C/S I10's (2 RTR) second round. The Board is of the opinion that all of these actions could not have taken place within the timeframe given in the evidence of the crew and that it would have taken some minutes to recover from the shock and disorientation and get all the crewmen in their right positions and work out what was going on and what to do about it. The opinion of the Board is that the interval between these two rounds was 6 minutes, as evidenced by the FCC of C/S I10 (2 RTR).

Flag D-h-P137

Flag D-h-P118  
O-d-P47D

100. Actions of C/S N11 (QRL). There is confusion over exactly when C/S N11 (QRL) reversed; it is claimed that it is after C/S N12 (QRL) has been hit that C/S N11 (QRL) is also struck. Sgt ██████ admits that in the early evening he parked his tank next to Cpl Allbutt's. He was about 20 feet away and 'too close to fully traverse as I would have hit him.' He states that it is once C/S N12 (QRL) has been hit that he 'switched on his weapon systems in preparation to engage the enemy,' and that he reversed past C/S N12's (QRL) back decks only after it had been struck which is when the third round hit the rear of C/S N11 (QRL). The Board is of the opinion that having seen the direction from which the initial round, whether indirect or direct fire, had come, i.e. from the right, that he would have wished to move away from C/S N12 (QRL) in order to use his weapon systems effectively by traversing the gun. The Board's opinion is that Sgt ██████ reversed after the first round which is when C/S I10 (2 RTR) observed his tank and engaged with his second HESH round. This round hit Cpl Allbutt's tank, with debris hitting the rear of Sgt ██████'s tank. If he had still been in his original position when the round struck C/S N12 (QRL) then the Board assesses that the effect on C/S N11 (QRL) would have been more significant. After C/S N12 (QRL) had been hit Sgt ██████ observed two casualties on the ground. He ordered LCpl ██████ out of the tank to administer first aid and, as C/S N12's (QRL) ammunition exploded he reversed again to get out of the way. The Board finds that C/S N11 (QRL) reversed twice during the

Flag K-g-P2&3

Flag N-d-P42A

incident, once following the first round and again after C/S N12 (QRL) had been hit. Once he had moved further back he was able to identify the two 2 RTR tanks at the Dam and establish that the fire was from friendly forces. It was only once he had determined this that he then ordered out the remainder of the crew, Tpr [REDACTED] and Tpr [REDACTED] to assist LCpl [REDACTED] in administering first aid.

Flag O-k-SC/1

101. Cause of Damage to C/S N11 (QRL). The evidence from the crew of C/S N11 (QRL) is that the damage caused was cosmetic and easily repaired, but this would be unlikely had the rear of the tank being struck even a glancing blow from a HESH round; the damage would have been much more significant than that described or witnessed on subsequent inspection. C/S I10 (2 RTR) observed an armoured vehicle reversing away from the scene some 5-6 minutes after they had fired their first round and decided to engage. There is a discrepancy as to what was the exact fire order given to the gunner, whether MTLB or an order to fire at the bunker again. Whatever the fire order, the trajectory of the round passed through the commander's hatch of C/S N12 (QRL). As the round hit it is probable that high velocity fragments struck the rear of C/S N11 (QRL) giving the impression that it, too, had been hit by a round. The Board is of the opinion that, subsequently, the crew remembered this as two distinct rounds. The spread of the, relatively slight, damage suggests that it was caused by debris and this can only have come as a result of a round impacting on C/S N12 in front; Sgt [REDACTED] accepts that this could have been the case. This sequence of events is corroborated by the technical evidence of Dr [REDACTED] concerning the effect of a HESH round detonating on the commander's hatch of C/S N12 (QRL). The hatch would have broken into pieces with those fragments being propelled behind the vehicle. Enemy action has been suggested as a possibility for one of the three rounds and that an RPG team could have infiltrated across the Dam. Again, this is not borne out by the evidence. This team would probably have followed up their successful attack on a now confused tank position and in all likelihood would have been identified through their TI sights either by C/S N11 (QRL) at the Dam or by C/S I10 (2 RTR) at the Bridge. Sgt [REDACTED] does not now believe that the events at his position were caused by enemy action. Sgt [REDACTED] states that when C/S N12 (QRL) was hit the turret immediately ignited and that there was no gap between the round landing and it being set on fire. The Board is of the opinion that this accords with the evidence from C/S I10 (2 RTR) at the Bridge, and that this round was the one fired 6 minutes after the first. The damage to C/S N11 (QRL) occurred as part of the same event when C/S N12 (QRL) was struck and was not caused by another, third, round.

Flag N-d-P43C

102. Number of Rounds Fired. Sgt [REDACTED] and members of his crew reported that three rounds were fired at their location. There is little evidence to support this. The restricted view through Sgt [REDACTED]'s episcopes may well have contributed to the perception that this was an artillery or mortar attack as, within the tactical scenario, this may have been the most likely form of attack. There is no evidence of a strike from indirect fire. The three rounds fired were only witnessed by Sgt [REDACTED] with the other crew members, less LCpl [REDACTED], of C/S N11 (QRL) stating that, from within the turret, they heard three rounds impacting at their location. LCpl [REDACTED] states that he was outside the tank when he thought the third round was fired. The evidence of Sgt [REDACTED] and Capt [REDACTED]

the that from the FCC of C/S I10 (2 RTR) suggests that only two rounds were fired from the location of the Bridge. The opinion of the Board is that the detailed inspection of the tank and an analysis of the evidence indicate that it is beyond reasonable doubt that only two rounds were fired at the QRL position. Sgt [REDACTED] states that he saw a round hit the turret of C/S N12 (QRL) and cause an instantaneous fire and explosion; this event was witnessed by C/S I10 (2 RTR) who thought that they had hit an ammunition dump with their second and last round they fired. There was no other flash which was identified following this highly visible event by C/S I10 (2 RTR). Sgt [REDACTED] thinks that the explosion of C/S N12 (QRL) took place 30 seconds after the first round, but the FCC of C/S I10 (2 RTR) shows that there was a 6 minute gap between the two rounds and that no more HESH rounds were fired. Sgt [REDACTED] thought that the trajectory of the second round indicated that he was under attack from an indirect fire weapon. He is clear that the trajectory of the third round, which he believes hit the rear of his tank, was from a direct fire weapon. There was concern that the firing log of C/S I12 had not been checked after the event. Sgt [REDACTED] states that he saw two CR2s in the area of the Bridge and he naturally assumed that both tanks had played a part in this incident. The FCC log of C/S I12 (2 RTR) was checked and found not to have fired over the period in question. Following the incident it may have been known that C/S I10 (2 RTR) fired two rounds which still left the question of whether C/S I12 (2 RTR) had fired unresolved. The effect of C/S N12's (QRL) ammunition cooking off and the rear of C/S N11 (QRL) being struck may have led the crew, to believe that another round had been fired. However, there is no evidence of a third round being fired and if it had hit C/S N11 (QRL) the damage would have been of a different order. The Board finds that the second and third rounds as described by the crew of C/S N11 (QRL) were one and the same, but considers that, understandably, events became confused in the recollection.

103. Board's Summary of the Sequence of Events at the Dam and Bridge 4. The Board is of the opinion that the events at the Dam and the Bridge occurred in the sequence described below. C/S I10 (2 RTR) observes two then four hotspots on top of what he considers is a bunker; he seeks clarification as to what is in the area and asks permission to fire from an infantry callsign which is given. Some 30 minutes after first identifying the hotspots, he fires a HESH round which falls short throwing up a splash of earth. No explosion is witnessed which indicates that this round only partially detonates. At the Dam, crews see the round land in front of them throwing up earth and showering Sgt [REDACTED] with 'molten playdough'. This is believed to be from the internal fill of the round, possibly the resin at the tip of the HESH round, which has failed to function fully. LCpl [REDACTED] is blown off the top of his tank and set on fire and Tpr [REDACTED] is also blown off and badly injured. LCpl [REDACTED] is blown off C/S N11 (QRL), comes to after landing on the ground and climbs back on. Tpr [REDACTED] gets into the gunner's seat and Tpr [REDACTED] attempts to close the loader's hatch before letting LCpl [REDACTED] in and climbing under the gun to his driver's position and starting up. LCpl [REDACTED] hands Sgt [REDACTED] his headsets who then sends a contact report to the effect that he is being engaged by artillery. He sees Cpl Allbutt standing in commander's hatch telling his gunner, Tpr [REDACTED], to get in; LCpl [REDACTED] is on the ground but to the rear of his tank. After the

immediate actions have been completed and the crew of C/S N11 (2 RTR) are mounted Sgt [REDACTED] orders the driver, Tpr [REDACTED] to reverse a short distance in order for him to be able to traverse the gun. This action brings the rear of his CR2 into the view of C/S I10 (2 RTR) at the Bridge who, after a short discussion as to what the vehicle is, engages with a second round either directly at the suspected MTLB, C/S N11 (QRL), or at the same area as the previous round. The round hits the commander's hatch of C/S N12 (QRL). The total time taken from the first round which was fired and the second round that hit C/S N12 is 6 minutes. This event is witnessed through his episcopes by Sgt [REDACTED] who sees the round, which he takes to be from artillery, pass through Cpl Allbutt. This round sets fire to LCpl [REDACTED] again and causes further injury to both he and Tpr [REDACTED]. It is at this point that the damage was caused to C/S N11 (QRL) by the debris from the effects of the round which struck C/S N12 (QRL), which Sgt [REDACTED] takes to be RPG fire. The commander's cupola and the loader's GPMG and pintle mount are blown off and the effect of that round ignites the HESH rounds located on the turret floor. All the crew of C/S N11 (QRL) are in the turret at the time of the round hitting C/S N12 (QRL) and therefore at the time that the rear of C/S N11 (QRL) is hit. C/S N12 (QRL) begins to brew up and Sgt [REDACTED] sees the two injured crewmen on the ground and he orders LCpl [REDACTED] out of the turret to go and administer first aid. He dismounts and returns to collect more field dressings at which point the munitions from C/S N12 (QRL) are exploding all around him leading him to believe that this was a separate attack on his tank. Sgt [REDACTED], again, reverses his vehicle a short distance to get away from the explosions and is then able to traverse his turret in the direction of the attack. He identifies two CR2s at the Bridge and establishes that it was a 'blue on blue' incident. Once he is satisfied that there is going to be no more incoming fire he orders Tpr [REDACTED] and Tpr [REDACTED] out to assist LCpl [REDACTED] in giving first aid to the injured.

#### **COULD THIS INCIDENT HAVE BEEN PREVENTED?**

104. It is the opinion of the Board that this incident could have been prevented if the following had occurred :

- a. Boundaries had been fully and accurately briefed and the Bde Trace dated 23 Mar 03 been disseminated in a timely fashion.
- b. OC B Coy's orders had included the assumption made about the Company boundaries as well as the existence and tactical significance of the Dam to operations on Bridge 4.
- c. All troops had received a formal tactical brief for their task in the Compound prior to deploying over the Bridge following OC B Coy's orders; this brief should have included the existence of the QRL tanks at the Dam when it became known.
- d. C/S I10 (2 RTR) had displayed more inquisitiveness about the details of the task over the Bridge and not accepted the lack of key information.
- e. The troop and platoon had acted in a co-ordinated and



unified manner regarding arcs of fire, target reference points and enemy threat within a properly structured brief for handover of a tactical position, ensuring adequate liaison and communications.

f. C/S I10 (2 RTR) had not been disorientated and placed the potential target on the wrong side of the Canal.

g. There had been positive identification of the hotspots as enemy.

## **RECOMMENDATIONS OF THE BOARD**

105. **Doctrine**. It is recommended that a Combat Identification Doctrine Note be produced for use at the tactical level. It should list the components of Combat ID, the causes of fratricide and fratricide prevention measures.<sup>11</sup>

106. **Publications**. It is recommended that :

a. The Army Field Manual on Battlegroup Tactics should include a more comprehensive explanation of the conditions in which fratricide might occur and the preventative measures that could be taken.<sup>12</sup>

b. The All Arms Tactics Aide Memoire should include reference to the causes and prevention of fratricide.

107. **Training**. It is recommended that :

a. The incidence of fratricide in training continues to be investigated and analysed to determine causal links.<sup>13</sup> Prevention measures should be devised accordingly and briefed as part of the Before Action Review prior to all formal training events. Causes and trends should be identified and published in Observations From Training.

b. The training of AFV crew commanders should include the development of an inquisitorial approach to Combat ID, whether technical or procedural. Each component should be considered as an aid to the overall judgement required as to whether or not to engage a target and not viewed in isolation.

108. **Target Identification**. It is recommended that :

a. **Unit Recognition Trainer (URT)**. The current URT is updated to include a thermal capability with an array of thermal images, which include vehicles in a variety of aspects and ranges. Friendly force vehicles must be shown in an up-armoured state with CIPs fitted. The URT must be deployable and capable of being updated with mission specific images. Any new system

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<sup>11</sup> This recommendation is included in the Land Combat Identification Action Plan Version 0.8.

<sup>12</sup> AFM Vol 1, Part2, Combined Arms Operations, Battlegroup Tactics. Issue 2.0 Feb 02. Chapter 2 : Functions in Combat P2-6

<sup>13</sup> Mission Support Group at LWC has produced a Fratricide Incident Report for use during training.

should be introduced in a timely manner and in sufficient numbers.<sup>14</sup>

b. CIPs. The BATUS fleet is fitted with CIPs to make crews aware of the signature in training. If practicable this should be extended to BGTU vehicles and those deploying on other field training exercises. CIPs should also be integrated into AFV Recognition training as well as simulator training on CATT and PGTE. They should also be incorporated into friendly force targetry.

c. Battlefield Target Identification Device (BTID). Work is continued apace into developing a programmable active 'Q and A' thermal beacon for target identification. This system should be able to interrogate targets and provide a positive response if it was a friendly vehicle.

d. Laser Identification System. A system which incorporates a smart laser return indicating friendly vehicles should be investigated.

e. Coalition Policy. Coalition policy on the technical combat identification measures to be adopted in any future combat is set early to allow adequate time for preparation and training. Although there will be issues of OPSEC, a balance must be struck to ensure that all troops are familiar with the measures in force.

109. Situational Awareness. It is recommended that crew commanders are trained to exploit the Bowman digitisation situational awareness capability. This will need to include dealing with the mass of information depicting the location of each friendly force vehicle and inputting enemy targets and allocating arcs of fire on the Platform Battlefield Information Systems Application (PBISA).

110. Tactics, Techniques and Procedures (TTPs). It is recommended that training emphasises the use of TTPs already in place. The following aspects should be reinforced on courses and field training :

a. Battlefield discipline and low level tactical skills associated with the handover of a tactical position.<sup>15</sup> (On the Troop Leaders' course the Relief in Place is not practiced on FTX, but is discussed on a TEWT.)

b. Fire control and discipline, in particular the methodical and accurate allocation and co-ordination of arcs of fire and fire control measures, so that they are clearly understood especially in the stress of combat.<sup>16</sup>

Flag M-WGCB/01  
P6 para 18

Flag D-hh-P9  
M-WGCB/02  
P3 para 5

<sup>14</sup> This recommendation has been articulated in the Army Visual Recognition and Identification Training Capability Statement of User Need.

<sup>15</sup> Land Component Handbook : Unit SOPs Issue 2.0: Jul 01. P6-3-2 : Tactical Skills. P6-29-1: Relief in Place.

<sup>16</sup> AFM Vol 1 Part 2, Combined arms Operations, Battlegroup Tactics. Issue 2.0 Feb 02. Chapter 7, P7-21.

c. The formal use and handover of Range Cards by AFV Commanders. The production of this fundamental piece of equipment should be instinctive to an AFV commander.<sup>17</sup> The use of a Range Card ensures that the handover of a tactical position is simple and well structured in a combat situation; these are now taught to Troop Leaders at the LWC Tactics Division.

d. Employment Objective (EO) 1.3 of Training Objective (TO) 1.1 for Troop Leaders, Control of Fire, should place more emphasis on the format and accuracy of Tactical Reporting, in particular Sighting and Contact Reports.

e. Operations on boundaries and the importance of flanks.

f. Understanding of battlefield geometry, including the purpose and relevance of boundaries, LOE and FSSLs.

g. Map marking conventions.

h. Use of LOs for cross boundary liaison.

i. The importance of maintenance and retention of accurate radio logs for immediate use and as an official reference document.

111. Anti-Fratricide Measures. The following anti-fratricide measures should be adopted :

a. Measures to avoid fratricide should be included in the format for tactical orders.

b. An anti-fratricide Aide Memoire should be issued on an individual distribution.

c. Judgemental scenarios should be included in the synthetic environment in order to establish cause and effect of fratricide. These scenarios should identify the likely conditions under which fratricide may occur, and demonstrate avoidance measures.

d. Emphasise fire control and discipline.

112. Gunnery Training. It is the view of the Board that the current Gunnery EOs and TOs for armoured Troop Leaders are sufficient. However, it is recommended that :

a. All crew commanders should be taught to relate weapon danger areas and weapon effects to a tactical scenario.

b. Night firing packages on ranges needs to be more demanding and realistic with better thermal targetry, including friendly force targetry fitted with CIPs.

<sup>17</sup> RAC Vol 1 The Armoured Sqn Ch 2 para 7f, Ch 5 para 14a & AFM Part 2 BG Tactics para 63a.

- c. Inclusion of friendly force targetry in advanced LFXs as standard practice.

### **ANY OTHER MATTERS THAT THE BOARD DEEM RELEVANT**

113. Establishment of a Battle Captain. It is recommended that an Armoured Infantry company be established for a Battle Captain on their Unit Establishment Table. If B Coy had been established for this individual many of the problems of a split Coy HQ would have been alleviated. Whilst the 2IC was deployed across the Canal, the Battle Captain could have co-ordinated details about the task with BGHQ, updated the operations map and been responsible for the tactical brief prior to troops deploying on task.

Flag L-CGH/1  
P12 para 5


114. Liaison Officers. It is recommended that all Liaison Officers should deploy in protected vehicles so that they are better able to conduct lateral liaison in the battle zone.


115. Operational LAIT. Procedures for dealing with incidents of this nature are formalised with a clear lead. An organisation, such as an operational LAIT must deploy early into theatre. Its remit would be to investigate operational incidents immediately to capture lessons learned and advise commanders so that preventative measures can be introduced at the earliest opportunity.


116. Preservation of Evidence. There was a significant delay in gaining access to the site of C/S N12 (QRL) to gain evidence. This was due to the assessment at the time that the operational situation was not sufficiently benign to permit the RMP access to the site. As the recovery of the tank some 80m to the rear had already taken place before an adequate inspection could take place, vital evidence may have been disturbed or completely destroyed. In addition, the site had not been secured and so equipment was removed. The preservation of evidence is essential and, where the operational situation allows, the site must be secured and controlled until after any initial enquiries have taken place. Recovery of any damaged or destroyed equipment must not happen until all agencies have collected relevant evidence from the site. This should include the ATO to clear the tank of munitions and, on recovery to a base area, a ballistics expert to examine the tank prior to shipping to confirm the nature of ammunition involved.

Flag L-CGH/1  
P12 para 4

117. Inquiry Timelines. The Inquiry has been made more complicated by the passage of time since the incident, which has made the recollection of events and their juxtaposition much more difficult for the witnesses in giving their evidence. The incident occurred on 25 Mar 03, but the Board did not convene until 17 May 04. Inquiries such as this must be able to begin their work in a much more timely fashion.

  
Lieutenant Colonel  
President

  
Major  
Member

  
Warrant Officer Class 2  
Member

**SIDE FLAG 1**

**To**

**FLAG C**

**PERSONALITIES AND CALLSIGNS**



**SIDE FLAG 1 TO FLAG C – PERSONALITIES AND CALLSIGNS**

**HQ 7 ARMD BDE OPS STAFF**

SO3 G3 Ops                      Capt [REDACTED]  
SO3 G3 Training Plans        Capt [REDACTED]

**1 BW**

Ops Offr        Capt [REDACTED]

**1 RRF**

Capt [REDACTED]

**B COY 1 BW**

OC                      Maj [REDACTED]  
2IC                     Capt [REDACTED]  
5 Pl Comd            Lt [REDACTED]        C/S    M10  
WR Sgt                Sgt [REDACTED]        C/S    M12

**Z COY 1 RRF**

Maj [REDACTED]

**EGYPT SQN 2 RTR**

OC                      Maj [REDACTED]

**9 TP**

**C/S I10**

Comd Lt [REDACTED]  
Op    Cpl [REDACTED]  
Gnr    LCpl [REDACTED]  
Dvr    Tpr [REDACTED]

**I11**

Sgt [REDACTED]

**I12**

Cpl [REDACTED]  
LCpl [REDACTED]  
Tpr [REDACTED]  
Tpr [REDACTED]

**10 TP**

**C/S I20**

Comd Lt [REDACTED]

**I21**

Sgt [REDACTED]

**I22**

Cpl [REDACTED]

**11 TP**

**C/S I30**

Comd Lt [REDACTED]

**I31**

Sgt [REDACTED]

**I32**

Cpl [REDACTED]

**12TP**

**C/S I40**

Comd Lt [REDACTED]

**I41**

Sgt [REDACTED]

**I42**

Cpl [REDACTED]



[REDACTED]

C SQN ORL

OC Maj [REDACTED]  
LO SSgt [REDACTED]

2IC Capt [REDACTED]  
42 Comd Sgt [REDACTED]

1<sup>st</sup> TP

C/S N11

N12

Comd Sgt [REDACTED]  
Op Cpl [REDACTED]  
Gnr Tpr [REDACTED]  
Dvr Tpr [REDACTED]

Cpl Allbutt  
LCpl [REDACTED]  
Tpr [REDACTED]  
Tpr Clarke

At the time of the incident the crew positions were as follows: (Exhibit DT/2).

N11 [REDACTED] (MG) Loaders position Stag  
Fan Decks  
Turret

N12 Allbutt (MG) Commanders position Stag  
Clarke Turret/Dvrs Position  
[REDACTED] Turret/Fan Decks

[REDACTED]



**SIDE FLAG 2**

**To**  
**FLAG C**

**SEQUENCE OF EVENTS**

**SEQUENCE OF EVENTS**

a)	Date	Time (if Zulu)	Z Coy IRRF/ Z Coy IRRF	Egypt (2 RRF/ Egypt BW)	Comments
a)	(b)	(c)	(d)	(e)	(f)
1	06-Mar		HQ 7 Armd Bde OPO 002 issued.		
2	17-Mar		HQ 7 Armd Bde OPO 003 issued.		
3	21-Mar		Kuwait boarder crossed.		
4	22-Mar		Z Coy 1 RRF BG conducts Relief in Place with US Marines at bridge 4. Includes dam.		
5	22-Mar		Inter Coy boundary north of dam.		
6	23-Mar		7 Armd Bde decide to relieve in place 1 RRF with 1 BW.		
7	23-Mar	Evening	Bde Ops Staff and Ops Officers 1 BW/1 RRF discuss RIP of Z Coy at Bridge 4 and produce inter BG boundary.		Bde trace dated 23 Mar 03.
8	23-Mar	Evening	1 BW BG HQ 'O' Gp Maj [redacted] goes to Br 4 Maj [redacted] does not attend.	Maj [redacted] receives radio 'O's from BGHQ to relieve Z Coy 1 RRF at Bridge 4.	
9	23-Mar	2359Z	B Coy turret comds and 10 Tp Egypt Sqn briefed by Z Coy at bridge 4 compound.		
10				Maj [redacted] gives formal orders in compound.	Arc's and boundaries not included.
11	24-Mar	0330Z	Relief in Place completed at first light.		
12	24-Mar			Capt [redacted] after taking control of far bank sets arcs of fire. Imposes restrictions on opening fire.	
13	24-Mar	Morning	Inter BG boundary now south of dam.		
14	24-Mar	Morning	Capt [redacted] attends IRRF BGHQ. At O Gp he receives a change to C Sqn's right boundary and the task of over watch of dam.		
15	24-Mar	Mid Morning		Maj [redacted] receives radio orders to support 1 BW at Bridge 4. Egypt Sqn moves up to the Coy compound.	
16	24-Mar			9 Tp deploy to VCP.	
17	24-Mar	Midday	Capt [redacted] brief's Sgt [redacted] on new boundary up left side of bridge 4.	Maj [redacted] and Maj [redacted] speak on his arrival at the compound.	
18	24-Mar	Midday	Capt [redacted] informs Maj [redacted] of boundary changes.	Maj [redacted] gives quick battle orders on the tasks and the rotation of troops.	9 Tp at VCP. 10 Tp at Bridge.

9	24-Mar			Lt [REDACTED] receives a brief over the radio from OC Egypt reference tasks. I 31 visits VCP to brief Lt [REDACTED].	
10	24-Mar		N12 tasked to Dam to prevent locals/enemy crossing feature. Dismounts 2 crewmen to deal with a group of civilians attempting to cross.		
11	24-Mar	1300Z	N11 arrives after N12. After discussions with N12 positions himself 200m to the north. Right of arc covering dual carriageway.		
22	24-Mar			B Coy Warriors sighted in QRL arcs.	
23	24-Mar	1300Z	Sgt [REDACTED] requests LO.		
24	24-Mar	1325Z	Maj [REDACTED] tasks SSgt [REDACTED], the Sqn LO, to visit neighbouring Sub-Unit.		
25	24-Mar	1335Z	SSgt [REDACTED] Visits N11/N12 where he collects Sgt [REDACTED]'s map.		This map shows C Sqn QRL right boundary as dual carriageway.
26	24-Mar	1350Z		As a result of LO visit, OC B Coy decides no change to his dispositions or orders.	
27	24-Mar	1435Z	SSgt [REDACTED] returns to N11 and returns his map with B Coy 1BW frequency on.	OC B Coy reports QRL locations on Coy Radio.	
28	24-Mar			OC B Coy 1 BW goes to BGHQ for O's.	
29	24-Mar	Before 1800Z	Sgt [REDACTED] sees 12 suspected enemy in 1 BW area.	B Coy engage 30 enemy dismounts in area of compound with direct, indirect and air support.	
30	24-Mar	1800Z		10 Tp hands over to 11Tp. Brief done by comds face to face. Capt [REDACTED] present.	
31	24-Mar	1815Z		Lt [REDACTED]'s troop returns from the VCP to the compound for rest.	
32	24-Mar			Lt [REDACTED] and Sgt [REDACTED] brief Lt [REDACTED] in the Coy compound on bridge task.	
33	24-Mar			Capt [REDACTED] returns to the Compound for rest. Lt [REDACTED] briefed and left in charge.	
34	24-Mar	2359Z		11 Tp hand over to 9 Tp (I 32 HO to I 10).	

35	24-Mar			Lt [REDACTED] splits troop arc 9 - 3 o'clock.	
36	25-Mar			Lt [REDACTED] contacts Capt [REDACTED], asking to clarify the BG boundary to the west and if there were any friendly C/S in the area.	Lt [REDACTED] recalls being told no FF in area. Capt [REDACTED] passes message onto BW and awaits an answer.
37	25-Mar	0050Z	Tpr [REDACTED] is woken for his stag by Sgt [REDACTED].	Lt [REDACTED] identifies 2 hot spots.	
38	25-Mar			After a 15 min discussion in the turret, the hot spots disappear.	Cpl [REDACTED] mentions the possibility that they may be civilians.
39	25-Mar		Tpr [REDACTED] starts stag in the loader's hatch of N11. Cpl Allbutt is in the commander's hatch of N12. Tpr Clarke in vehicle.	Lt [REDACTED] identifies 4 hot spots.	
40	25-Mar			Lt [REDACTED] asks for permission to fire.	Lt [REDACTED] is unable to raise the PI Comd.
41	25-Mar			Sgt [REDACTED] gives permission, following RPG attack from the right.	
42	25-Mar		Both other crewmen of N12 on back decks: Tpr [REDACTED] standing, LCpl [REDACTED] sleeping.		
43	25-Mar	0122Z		Lt [REDACTED] fires one HESH round. Gunner does not see round land but reports 'Add'.	
44	25-Mar		Sgt [REDACTED] believes that the first round missed landing just in front of both vehs.		Several of both crews covered in molten fire balls.
45	25-Mar		Cpl [REDACTED] reported, he saw that N12 was on fire.		
46	25-Mar	0128Z		Crew of I10 report an MTLB and fire a second HESH round. A large explosion is observed.	
47	25-Mar		Tpr [REDACTED] feels a second impact throwing him through the air.		
48	25-Mar		Sgt [REDACTED] recalls seeing Cpl Allbutt getting into his turret with the round hitting him and striking the rear of the loaders hatch.		

19			Cpl [REDACTED] is told by Sgt [REDACTED] to go and administer 1st Aid to the 2 injured soldiers.		
50	25-Mar		Cpl [REDACTED] administers 1st Aid to LCpl [REDACTED] and Tpr [REDACTED] and moves them away from the burning vehicle.		
51	25-Mar		Sgt [REDACTED] thought that N12 might explode so moves his vehicle back 10 - 15 metres.		
52	25-Mar		Sgt [REDACTED] tunes to B Coy frequency. He hears end of a Contact Report. Traversing round he sees 2 tanks in the area of Bridge 4.	After about 5 mins N11 comes on to the Coy net stating FF had taken incoming. Sgt [REDACTED] asks I 10's direction of fire.	It is established that I 10 fired the rounds.
53	25-Mar		Sgt [REDACTED] reports to B Coy I BW BG that the contact was a 'Blue on Blue' and that men had been killed.	Capt [REDACTED] is woken and informed of incident. He speaks to an LO from I RRF.	LO is Sgt [REDACTED].
54	25-Mar	0200Z	Sgt [REDACTED] informs Capt [REDACTED] of 'Blue on Blue'		
55	25-Mar		Capt [REDACTED] co-ordinates Medivac.	Lt [REDACTED] is replaced by callsign I 42.	
56	25-Mar	First Light	Sgt [REDACTED] N41 and N14B tasked to N12 by OC.		

**FLAG D**

**SIGNED TRANSCRIPTS OF EVIDENCE TAKEN UNDER OATH**

[REDACTED]

1. The following transcripts and signed statements were given under oath by:

a.	[REDACTED]	Maj	[REDACTED]	CAST(G)	Page 3	
b.	[REDACTED]	Capt	[REDACTED]	7 X HLDRS	Page 18	
c.	[REDACTED]	Capt	[REDACTED]	16 AA	Page 33	
d.	[REDACTED]	Maj	[REDACTED]	1 RRF	Page 48	
e.		Dr	[REDACTED]	Armour Expert	Page 71	
f.	[REDACTED]	Maj	[REDACTED]	QRL	Page 78	
g.	[REDACTED]	WO2	[REDACTED]	ARMTAT	Page 99	
h.	[REDACTED]	SSgt	[REDACTED]	QRL	Page 116	
i.	[REDACTED]	LCpl	[REDACTED]	QRL	Page 144	
j.	[REDACTED]	Tpr	[REDACTED]	QRL	Page 157	
k.	[REDACTED]	SSgt	[REDACTED]	QRL	Page 163	
l.	[REDACTED]	Sgt	[REDACTED]	2 RTR (OPFOR)	Page 169	
m.	[REDACTED]	Cpl	[REDACTED]	2 RTR (OPFOR)	Page 191	
n.	[REDACTED]	Lt	[REDACTED]	2 RTR (OPFOR)	Page 218	
o.	[REDACTED]	Capt	[REDACTED]	1 BW	Page 241	
p.	[REDACTED]	Tpr	[REDACTED]	2 RTR (Rear)	Page 3	
q.	[REDACTED]	LCpl	[REDACTED]	2 RTR	Page 16	
r.	[REDACTED]	Sgt	[REDACTED]	1 RTR	Page 37	
s.	[REDACTED]	LCpl	[REDACTED]	2 RTR	Page 70	
t.	[REDACTED]	Sgt	[REDACTED]	BW Att 1 HLDRS	Page 3	
u.	[REDACTED]	Capt	[REDACTED]	BW	Page 33	
v.	[REDACTED]	Capt	[REDACTED]	BW	Page 68	
w.	[REDACTED]	Maj	[REDACTED]	2 RTR	Page 110	
x.	[REDACTED]	Capt	[REDACTED]	1 RTR	Page 168	
y.	[REDACTED]	Lt	[REDACTED]	1 RTR	Page 194	
z.	[REDACTED]	Maj	[REDACTED]	BW	Page 3	
aa.	[REDACTED]	Lt	[REDACTED]	2 RTR	Page 3	
bb.	[REDACTED]	LCpl	[REDACTED]	QRL	Tape A7	
					Page 1	
cc.	[REDACTED]	Sgt	[REDACTED]	2 RTR	Tape A10	
					Page 1	
dd.	[REDACTED]	Capt	[REDACTED]	2 RTR	Page 3	Additional Statement
ee.	[REDACTED]	LCpl	[REDACTED]	1 RTR	Page 1	

ff.	Civilian	Col (Retd)	[REDACTED]	LAIT
gg.	[REDACTED]	Maj	[REDACTED]	ATDU
hh.	[REDACTED]	Lt Col	[REDACTED]	LWC
ii.	[REDACTED]	Tpr	[REDACTED]	QRL



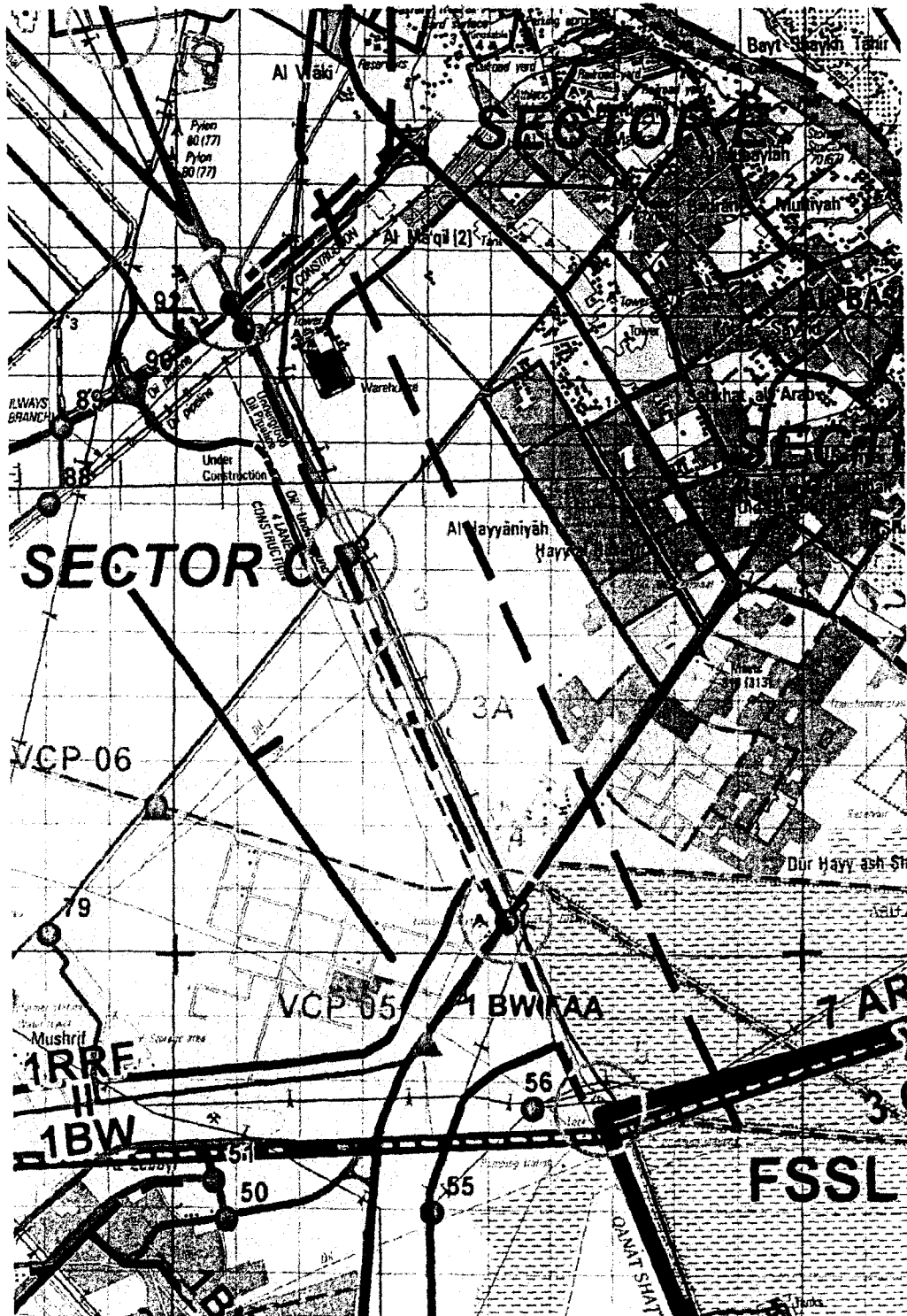


# FLAG E

**EXTRACT FROM 7 ARMD BDE TRACE DATED 23 MAR 03**

Extract from 1:100000 Map area around Bridge 4, including overlay of & 7Armd Bde trace Dated 23 Mar 04.

EXTRACT OF 7 ARMD BDE TRACE DATED 23 MAR 04

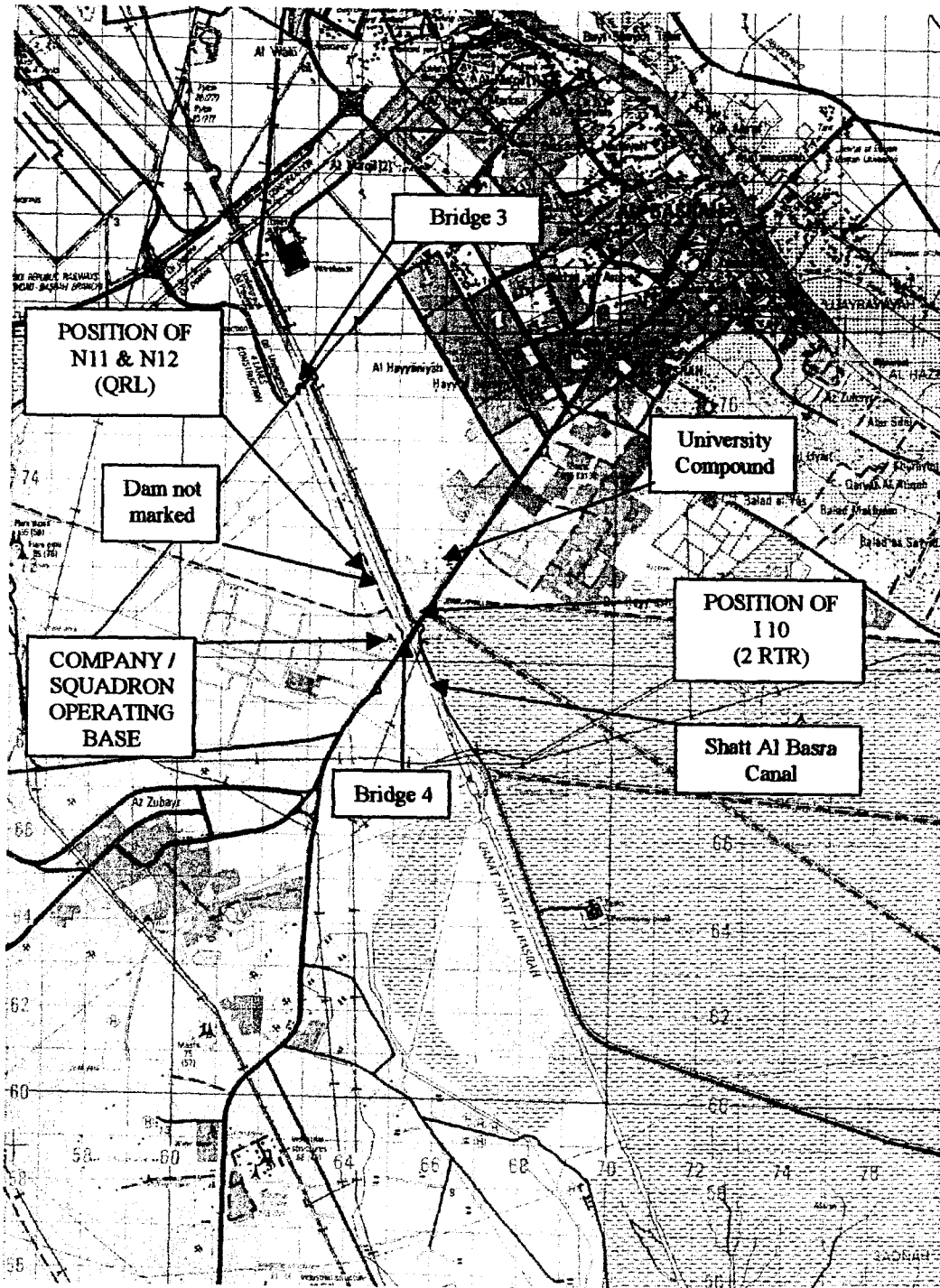


# **FLAG F**

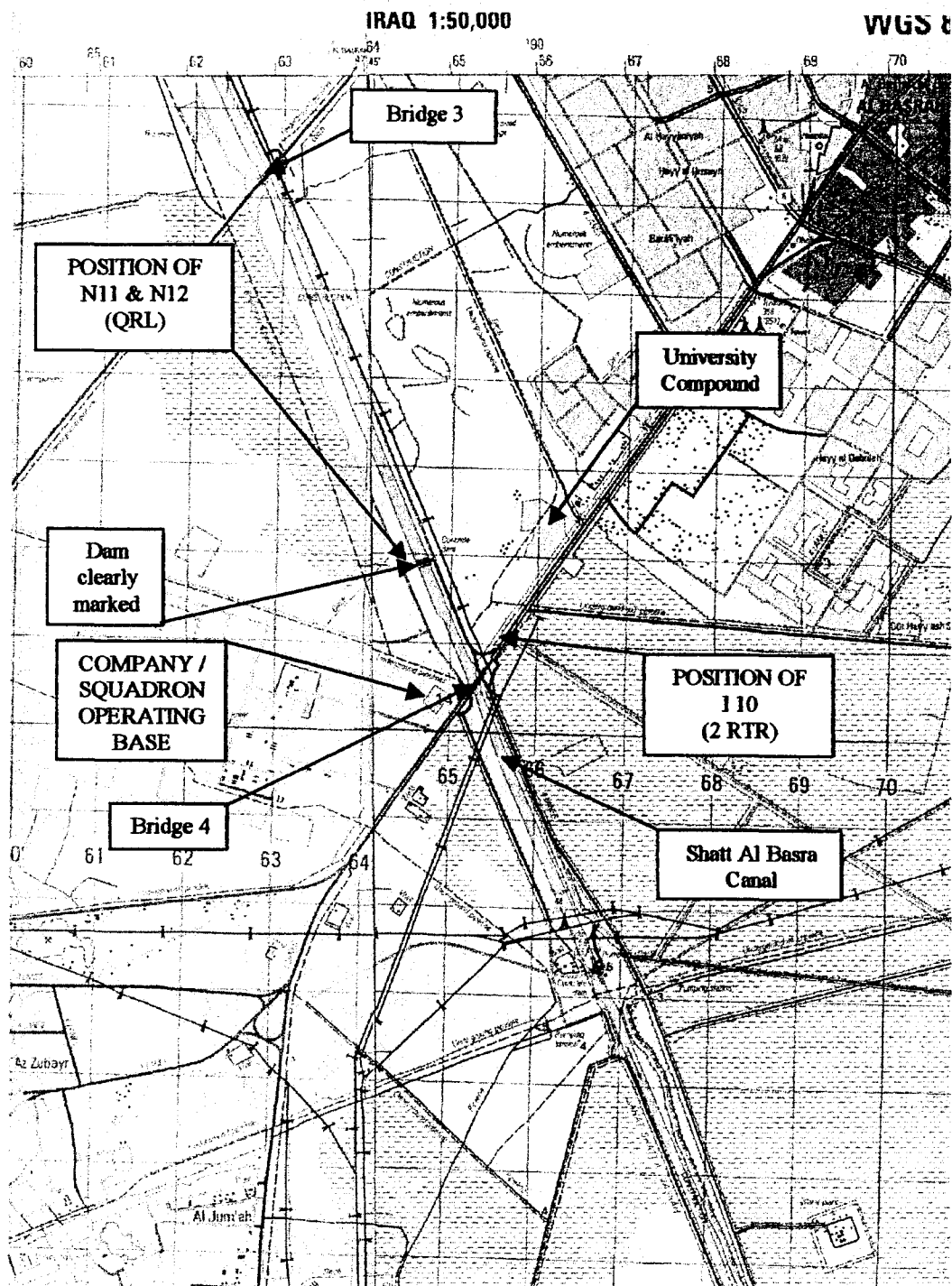
## **MAPS SHOWING LOCATIONS AND GRIDS OF INCIDENT**

- a. Extract from 1:100,000 Map including area around Bridge 4.
- b. Extract from 1:50,000 Map including area around Bridge 4.
- c. Extract from 1:15,000 Map including area around Bridge 4.

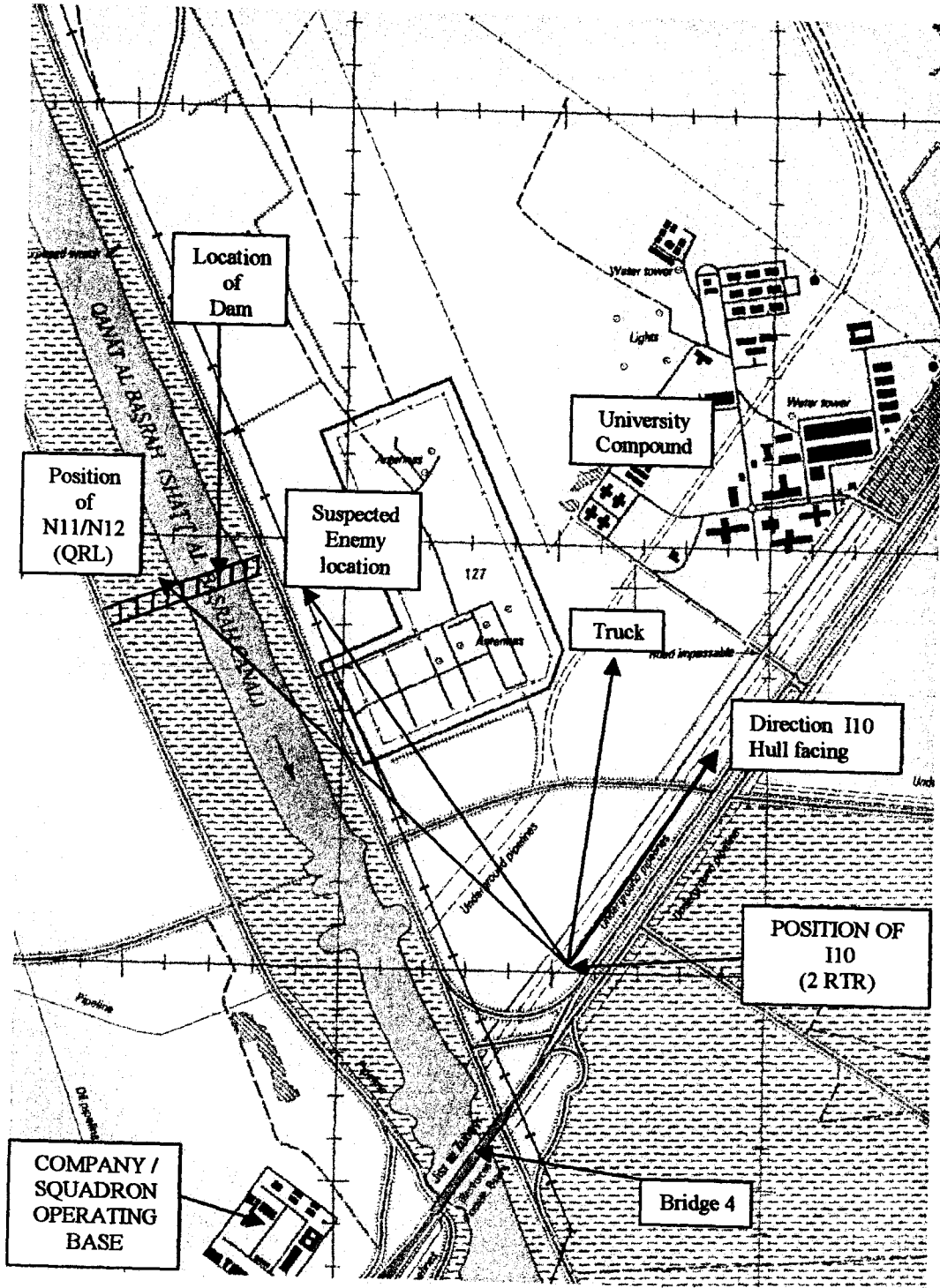
EXTRACT OF 1:100000 MAP



EXTRACT OF 1:50000 MAP



EXTRACT FROM 1:15000 MAP



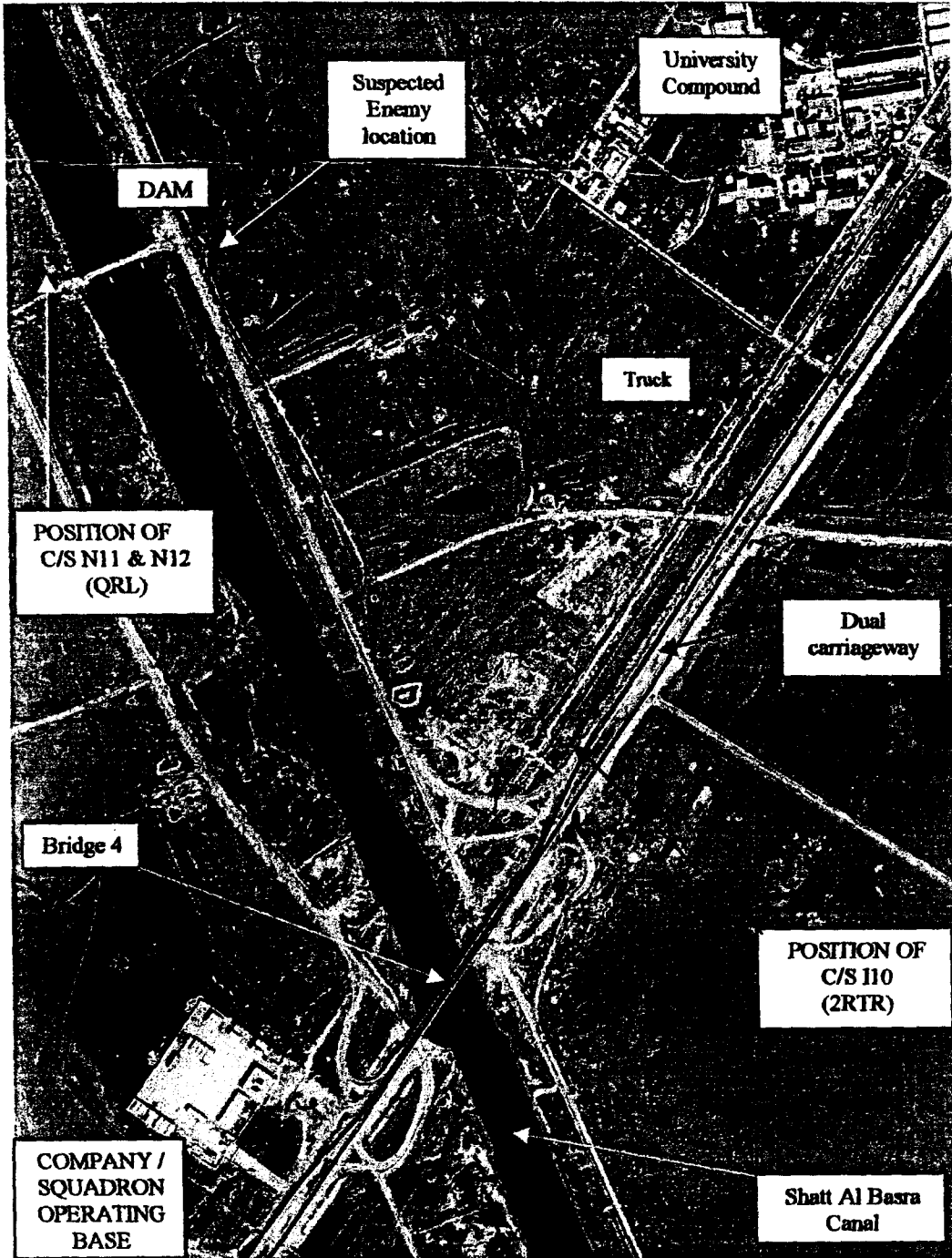


# FLAG G

## PHOTOGRAPHIC SUPPLEMENT

- a. Aerial Photograph of bridge 4.

AERIAL PHOTOGRAPH OF THE AREA OF BRIDGE 4

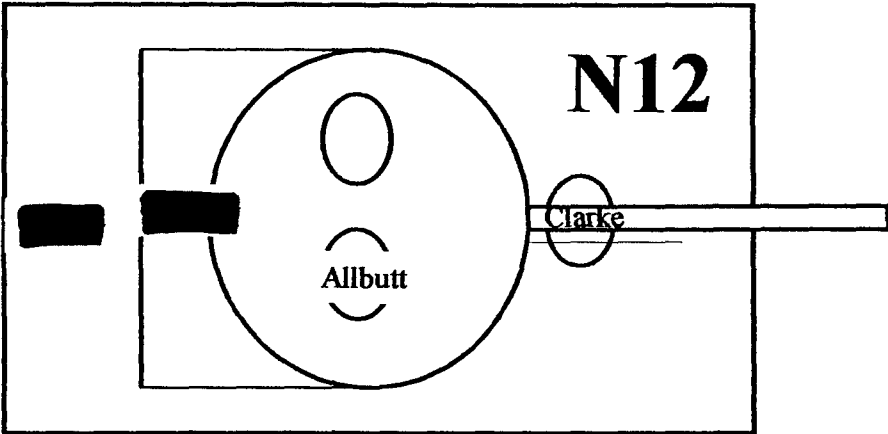
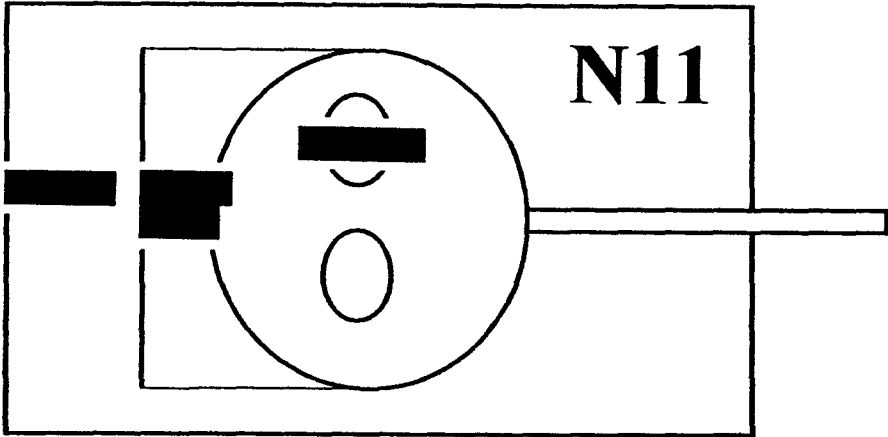




**██████████**

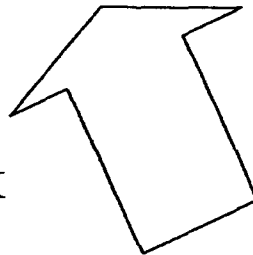
# **FLAG H**

**N11 & N12 QRL Crew Positions on First Round**



Canal

Direction of attack



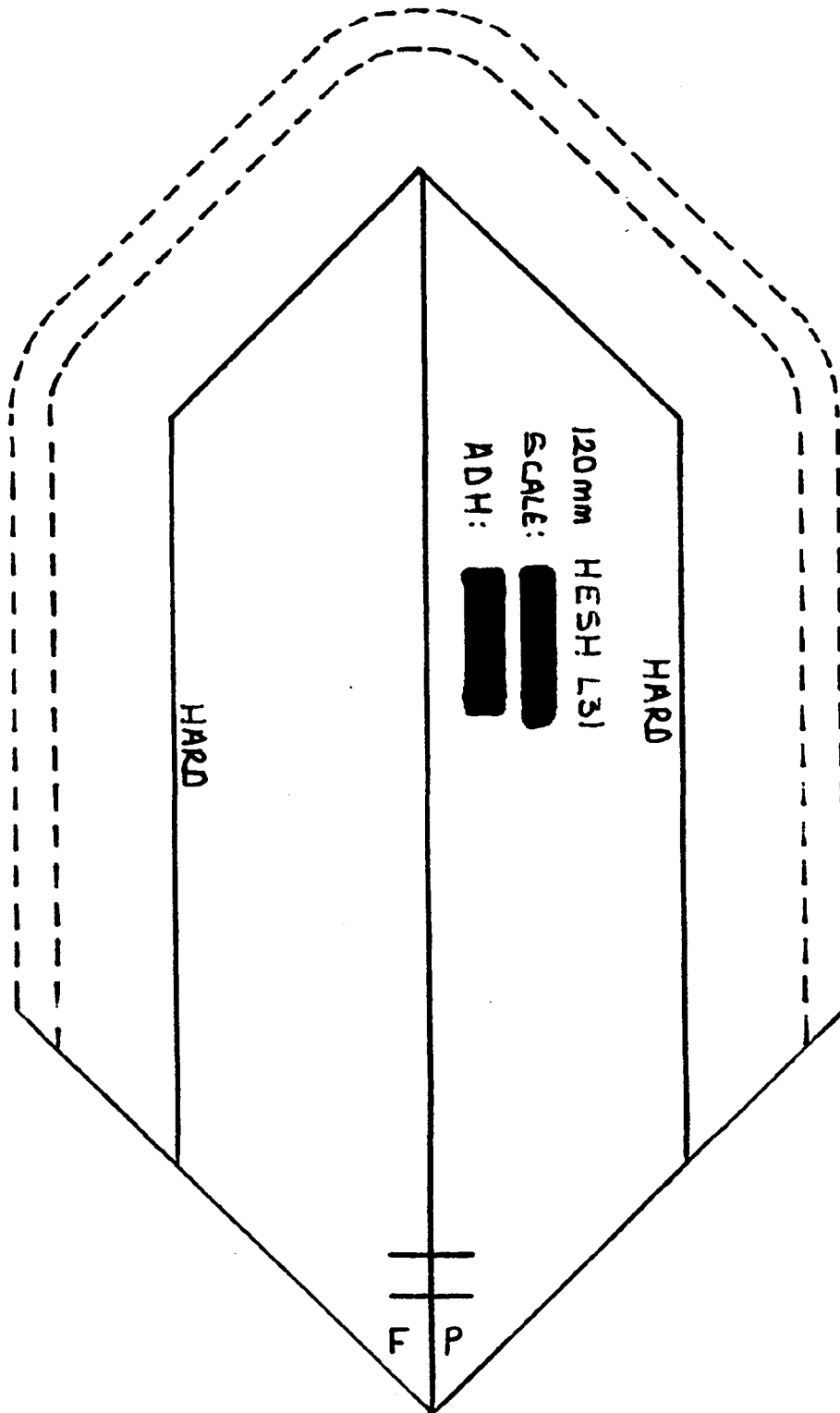
**FLAG I**

**HESH DANGER TEMPLATE**

FRATRICIDE

EXHIBIT AC 7

HESH DANGER TEMPLATE



Ref: D/D059/T65/2206/4

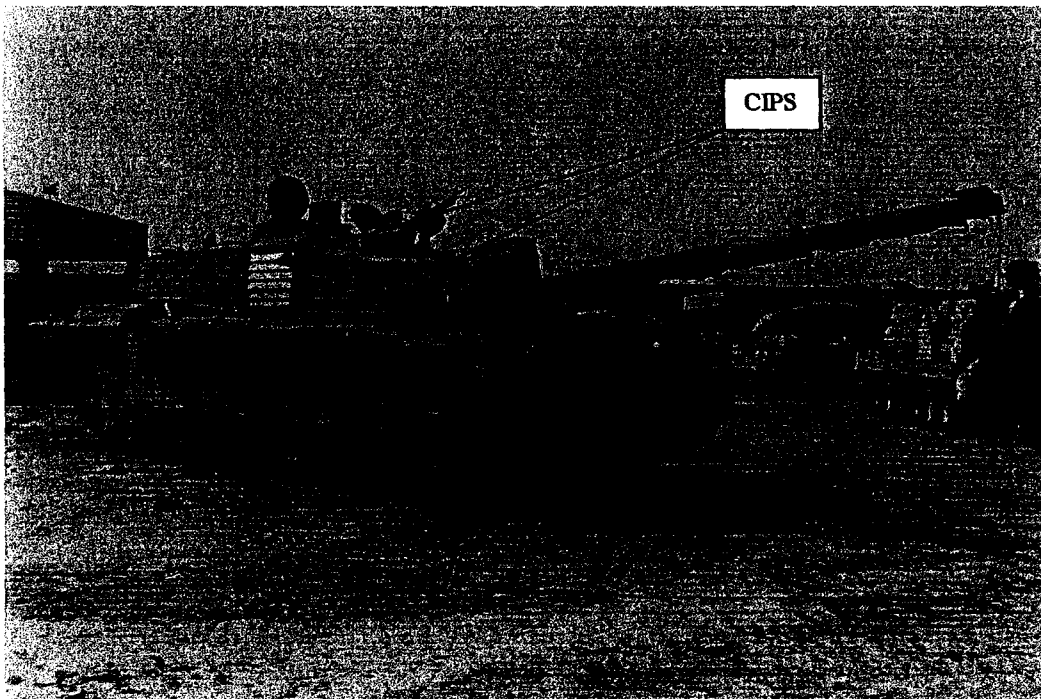
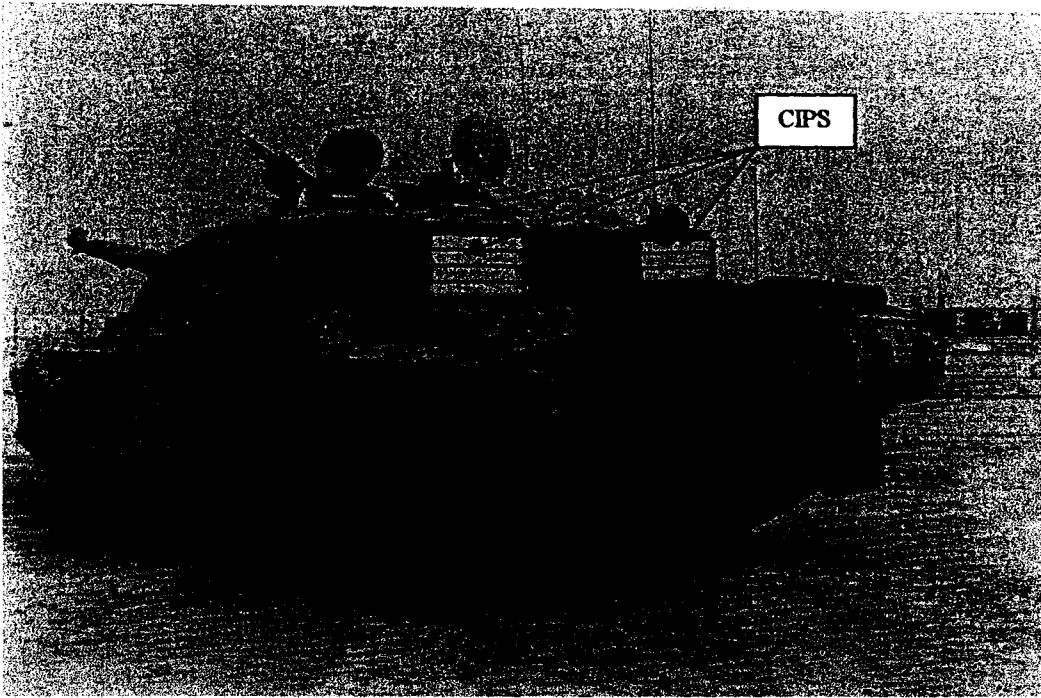


# FLAG J

## PHOTOGRAPHIC SUPPLEMENT

- a. Photographs of Challenger 2 with CIPS fitted correctly.

PICTURE OF CHALLENGER 2 FITTED WITH CIPS



**██████████**

# **FLAG K**

**WITNESS STATEMENTS TAKEN BY RMP**

This section contains the following witness statements and documentary evidence:

**Presented by**

- a. [REDACTED] Capt [REDACTED] - Hldrs
- b. [REDACTED] Maj [REDACTED] - RTR
- c. [REDACTED] Capt [REDACTED] - 1 RRF
- d. [REDACTED] Maj [REDACTED] - QRL
- e. [REDACTED] SSgt [REDACTED] - QRL
- f. [REDACTED] Capt [REDACTED] - QRL
- g. [REDACTED] Sgt [REDACTED] - QRL
- h. [REDACTED] Cpl [REDACTED] - QRL
- i. [REDACTED] Tpr [REDACTED] - QRL
- j. [REDACTED] Tpr [REDACTED] - QRL
- k. [REDACTED] LCpl [REDACTED] - QRL
- l. [REDACTED] Tpr [REDACTED] - QRL
- m. [REDACTED] Capt [REDACTED] - QRL
- n. [REDACTED] Sgt [REDACTED] - QRL
- o. [REDACTED] Capt [REDACTED] - 1 RRF
- p. [REDACTED] Maj [REDACTED] - 1 RRF
- q. [REDACTED] Maj [REDACTED] - 1BW
- r. [REDACTED] Capt [REDACTED] - 1 BW
- s. [REDACTED] Maj [REDACTED] - RTR
- t. [REDACTED] Capt [REDACTED] - RTR
- u. [REDACTED] Cpl [REDACTED] - RTR
- v. [REDACTED] Tpr [REDACTED] - RTR
- w. [REDACTED] Sgt [REDACTED] - RTR
- x. [REDACTED] LCpl [REDACTED] - RTR
- y. [REDACTED] Tpr [REDACTED] - RTR
- z. [REDACTED] Tpr [REDACTED] - RTR
- aa. [REDACTED] Sgt [REDACTED] - 1 BW
- bb. [REDACTED] Capt [REDACTED] - 1 BW
- cc. [REDACTED] Capt [REDACTED] - RA
- dd. [REDACTED] SSgt [REDACTED] - RTR



[REDACTED]

ee. [REDACTED] Lt [REDACTED] - RTR  
ff. [REDACTED] Sgt [REDACTED] - RTR  
gg. [REDACTED] Capt [REDACTED] - RTR  
hh. [REDACTED] Lt [REDACTED] - RTR  
ii. [REDACTED] Lt [REDACTED] - RMP  
jj. [REDACTED] Sgt [REDACTED] - RMP  
kk. [REDACTED] Cpl [REDACTED] - REME  
ll. [REDACTED] WO1 [REDACTED] - REME  
mm. [REDACTED] WO2 [REDACTED] - REME  
nn. [REDACTED] Cpl [REDACTED] - REME  
oo. [REDACTED] Sgt [REDACTED] - REME  
pp. [REDACTED] WO1 [REDACTED] - REME  
qq. [REDACTED] Cpl [REDACTED] - REME  
rr. [REDACTED] LCpl [REDACTED] - REME  
ss. [REDACTED] Cpl [REDACTED] - REME  
tt. [REDACTED] WO2 [REDACTED] - SCOTS DG  
uu. [REDACTED] SSgt [REDACTED] - RTR  
vv. [REDACTED] SSgt [REDACTED] - RTR  
ww. [REDACTED] WO2 [REDACTED] - RTR  
xx. [REDACTED] Cpl [REDACTED] - AGC  
yy. [REDACTED] SSgt [REDACTED] - SCOTS DG  
zz. [REDACTED] Maj [REDACTED] - LD  
aaa. Mr [REDACTED] - Civilian  
bbb. [REDACTED] Maj [REDACTED] - RLC  
ccc. [REDACTED] Capt [REDACTED] - RLC  
ddd. [REDACTED] Flt Lt [REDACTED] - RAF  
eee. Col (Ret'd) [REDACTED] - Civilian  
fff. [REDACTED] Maj [REDACTED] - RE  
ggg. [REDACTED] Maj [REDACTED] - RE  
hhh. [REDACTED] Capt [REDACTED] - BW  
iii. [REDACTED] Cpl [REDACTED] - AGC  
jjj. [REDACTED] Sgt [REDACTED] - RE  
kkk. [REDACTED] Sgt [REDACTED] - RE  
lll. [REDACTED] LCpl [REDACTED] - RAMC

██████████

mmm. Dr ████████ – Civilian  
nnn. Dr ████████ – Civilian  
ooo. ████████ Lt Col ████████ – RAMC  
ppp. Service Police – Record of Tape Recorded Interview pertaining to ████████ LCpl  
██████████ – RTR  
qqq. Service Police – Record of Tape Recorded Interview pertaining to ████████ Capt  
██████████ D – RTR  
rrr. ████████ Sgt ████████ – RMP  
sss. ████████ Capt ████████ – 1 BW  
ttt. ████████ LCpl ████████ – 1 BW  
uuu. ████████ WO1 ████████ – RLC  
vvv. ████████ Sgt ████████ – RMP  
www. Lt ████████ – 1 BW  
xxx. ████████ Capt ████████ – SCOTS DG  
yyy. WO2 ████████ – RMP  
zzz. ████████ Lt Col ████████ – RMCS  
aaaa. ████████ Cpl ████████ – 1 BW  
bbbb. ████████ SSgt ████████ – RMP  
cccc. ████████ SSgt ████████ – RMP  
dddd. ████████ Pte ████████ – 1 BW  
eeee. ████████ Sgt ████████ – RTR  
ffff. ████████ Capt ████████ – RTR  
gggg. ████████████████████ – RAF Brize Norton Mortuary  
hhhh. RMP Report.  
iiii. Sgt ████████ - RMP

**FLAG L**

**LIST OF RMP EXHIBITS**

██████████

EXHIBITS LIST

FRATRICIDE  
EXHIBIT AC 96

Exhibit Reference Number	Item	Person Producing and Original Location of Exhibit
MJLL/1	7 Bde Ops Trace dated 23 Mar 03	Sgt ██████████, RMP (SIB) – APA(G)
MJLL/2	Photostat Copy of 7 Armd Bde OPO 003. Entry into Basrah and the expansion north	Sgt ██████████, RMP (SIB)
RBT/1	Map Trace C Sqn QRL objective Leicester produced Mon 23 Mar 03 by Major ██████████	Sgt ██████████, RMP (SIB)
RBT/2	Sketch Plan of Incident at Bridge 3 compiled by Sgt ██████████	Sgt ██████████, RMP (SIB) – APA(G)
KG/1	Trace of 7 Bde Area abd Boundaries for period 23-27 Mar 03 as marked by Sgt ██████████, marking locations of his unit.	Sgt ██████████, RMP (SIB) – APA(G)
DT/1	Sketch Plan of Challenger Tank crew positions.	SSgt ██████████, RMP (SIB) – APA (G)
DT/2	Sketch Plan of Challenger Tank crew positions time of impact.	SSgt ██████████, RMP (SIB) – APA (G)
RMC/1	Carbon copy of Battle Group Log dated 25 Mar 03 compiled by Capt ██████████ (2 pages).	Sgt ██████████, RMP (SIB) – APA(G)
LRM/1	Orders prepared by Major ██████████	Sgt ██████████, RMP (SIB) – APA(G)
DAC/1	Self made notes of Lt ██████████	Sgt ██████████, RMP (SIB) – APA(G)
DAC/2	Egypt C/S 10 VRN DR31AA Engagement Log 24/03/03 (2 pages)	Sgt ██████████, RMP (SIB) – APA(G)
GJM/1	Floppy Disk	Sgt ██████████, RMP (SIB) – APA(G)
MJG/1	Photostat copy of Table 21 – Engagement Log parameters (2 pages).	Sgt ██████████, RMP (SIB) – APA(G)
MB/1	AFV TSG dry training test certificate dated 12/01/03	Sgt ██████████, RMP (SIB) – APA(G)
MB/2	Results of Turret Gunnery Trainer (TDT) simulation record, student Lt ██████████ consisting 4 pages.	Sgt ██████████, RMP (SIB) – APA(G)
MB/3	Results of Turret Gunnery Trainer (TDT) simulation record, student ██████████ consisting of 3 pages.	Sgt ██████████, RMP (SIB) – APA(G)
MB/4	Live firing Main Battle Tank Sqn daily summary sheet for Lt ██████████ consisting of 9 pages.	Sgt ██████████, RMP (SIB) – APA(G)
MB/5	LFX 1 to LFX 7 explanation from the Army AFV Shooting Policy.	Sgt ██████████, RMP (SIB) – APA(G)
MRB/1	Egypt ITD Record Sheet as at 01 Feb 03.	Sgt ██████████, RMP (SIB) – APA(G)

Exhibit Reference Number	Item	Person Producing and Original Location of Exhibit
PCJ/1	1 <sup>st</sup> Royal Tank Regiment course report 23 Apr 01 to 15 Jun 01.	Sgt [REDACTED], RMP (SIB) – APA(G)
SJK/1	Personal full record report of Lt [REDACTED] consisting of 9 pages.	Sgt [REDACTED], RMP (SIB) – APA(G)
SJK/2	Personal full record report of LCpl [REDACTED] consisting of 9 pages.	Sgt [REDACTED], RMP (SIB) – APA(G)
SJK/3	Range management qualification Course Report pertaining to Lt [REDACTED].	Sgt [REDACTED], RMP (SIB) – APA(G)
SJK/4	Troop Leaders Course Report pertaining to Lt [REDACTED].	Sgt [REDACTED], RMP (SIB) – APA(G)
JGN/1	2 x Copies of Internal Orders raised by Alvis Vickers Ltd.	Sgt [REDACTED], RMP (SIB) – APA(G)
JGN/2	Copy of MOD TSS Contract – TKSYS/0099 dated 26 Feb 03.	Sgt [REDACTED], RMP (SIB) – APA(G)
JGN/3	Op Telic Vehicle sign off sheets pertaining to MBT VRNs DR31AA, DS59AA and DS83AA.	Sgt [REDACTED], RMP (SIB) – APA(G)
RJA/1	Met Pack valid 241600 to 242400Z Mar 03.	Sgt [REDACTED], RMP (SIB) – APA(G)
WGCB/1	Report into death of Clarke on 25 Mar 03.	Sgt [REDACTED], RMP (SIB) – APA(G)
CGH/1	[REDACTED]	[REDACTED]
AMP/1	Radio Log Sheets dated 24 Mar 03 and 25 Mar 03 pages 9 and 10.	Sgt [REDACTED], RMP (SIB) – APA(G)
RJD/1	Radio Log for 23 Mar 03 to 25 Mar 03 pertaining to 7 Armd Bde.	Sgt [REDACTED], RMP (SIB) – APA(G)
WDR/1	7X Ops Trace dated 23 Mar 03	Sgt [REDACTED], RMP (SIB) – APA(G)
WDR/2	7X Ops Trace as at 063022ZMar03	Sgt [REDACTED], RMP (SIB) – APA(G)
GLCR/1	Az Zubayr 1:50000 Map Sheet	Sgt [REDACTED], RMP (SIB) – APA(G)
GLCR/2	Abu Al Khasib 1:50000 Map Sheet	Sgt [REDACTED], RMP (SIB) – APA(G)
GLCR/3	Al Basrah Image Map	Sgt [REDACTED], RMP (SIB) – APA(G)
GLCR/4	Al Basrah 1:15000 Map Sheet	Sgt [REDACTED], RMP (SIB) – APA(G)
JAH/1	Med Notes of [REDACTED] Sgt [REDACTED]	Sgt [REDACTED], RMP (SIB) – APA(G)
SJC/1	Map Extract provided by Lt [REDACTED]	Sgt [REDACTED], RMP (SIB) – APA(G)
SJC/2	Record of Tape Recorded Interview	WO1 (RSM) [REDACTED] – APA (G)

Exhibit Reference Number	Item	Person Producing and Original Location of Exhibit
SJN/1	C/S 10 Engagement Log for 24 Mar 03 (3 pages)	Sgt [REDACTED], RMP (SIB) – APA(G)
DQ/1	Sketch Plan Challenger 2 Main Battle Tank	SSgt [REDACTED], RMP (SIB) – APA (G)
DQ/2	Photographic Supplement	SSgt [REDACTED], RMP (SIB) – APA (G)
JRK/1	SOCO Report	Sgt [REDACTED], RMP (SIB) – APA(G)
JRK/8	Video Cassette	Sgt [REDACTED], RMP (SIB) – APA(G)
JRK/8a	VHS Video Cassette	Sgt [REDACTED], RMP (SIB) – APA(G)
JRK/9	Record of Tape Recorded Interview	Sgt [REDACTED], RMP (SIB) – APA(G)
JRK/10	1:15000 Map	Sgt [REDACTED], RMP (SIB) – APA(G)
JRK/11	1:10000 Map Sheet Al Basrah Area recovered from Lt [REDACTED]	Sgt [REDACTED], RMP (SIB) – APA(G)
JRK/12	Sketch Plan of GR QU 646719	Sgt [REDACTED], RMP (SIB) – APA(G)
JRK/13	Photographic Supplement	Sgt [REDACTED], RMP (SIB) – APA(G)
KJA/1	Mini DV Cassette of Challenger 2 MBT	Sgt [REDACTED], RMP (SIB) – Case File
KJA/1a	Mini DV Cassette of Challenger 2 MBT	Sgt [REDACTED], RMP (SIB) – Case File
DC/1	Photographic Supplement depicting injuries to [REDACTED] Tpr [REDACTED], QRL	Sgt [REDACTED], RMP (SIB) – APA(G)
DRT/1	SOCO Report	SSgt [REDACTED], RMP (SIB) – Case File
DRT/2	Digital Image	Sgt [REDACTED], RMP (SIB) – Case File
DRT/3	Digital Image	Sgt [REDACTED], RMP (SIB) – Case File
JSH/1	2 x Floppy Disk marked as A and B	Sgt [REDACTED], RMP (SIB) – Case File
NO/2	SOCO Report	SSgt [REDACTED], RMP (SIB) – Case File
UEM/1	Miscellaneous Incident Report	WO1 [REDACTED], ATO, 11 EOD Regiment.
NHDC/1	Map of Az Zubayr Area	Lt Col [REDACTED], DA Shrivenham
NHDC/2	Map of Az Zubayr Area	Lt Col [REDACTED], DA Shrivenham

Exhibit	Item	Person Producing and
---------	------	----------------------

[REDACTED]

Reference Number		Original Location of Exhibit
NHDC/3	Map of Az Zubayr Area	Lt Col [REDACTED], DA Shrivenham
RMLB/1	Armoured Wing Tactics Aide Memoire dated Dec 02.	Capt [REDACTED] ISTAR Group LWS.
RMLB/2	Section 7, RAC Tactics, Contact Action and Tactical Reporting.	Capt [REDACTED] ISTAR Group LWS.

[REDACTED]

**FLAG M**

**ADDITIONAL EXHIBITS**



<u>Flag</u>	<u>Presented by</u>	<u>Marked as Exhibit</u>	<u>Supporting statement at</u>
<b>Exhibits</b>			
M	LAIT Report dated 30 May 03	Col (Retd) [REDACTED]	WGCB/01
M	Addendum to LAIT Report dated 20 May 04	Col (Retd) [REDACTED]	WGCB/02
M	Base OPO 001/03 for Op TELIC Edition 3 DTG 152300Z Feb 03	Major [REDACTED] RWF - 1 (UK) Armoured Division	AWT/1
M	7 Armoured Brigade RSOI OPO 001 DTG 061000Z Feb 03	Captain [REDACTED] - SO3 G3 OPS/O & D 7 Armd Bde	ATC/02
M	7 Armoured Brigade OPO 002 for Op TELIC Edition 3 DTG 062300Z Mar 03	Captain [REDACTED] - SO3 G3 OPS/O & D 7 Armd Bde	ATC/03
M	Extract from 7 Armoured Brigade Radio Log dated 24 Mar 03	Captain [REDACTED] - SO3 G3 OPS/O & D 7 Armd Bde	ATC/1
M	Hand written Account of Incident at Bridge 4 by Major [REDACTED]	Major [REDACTED] - OC Egypt Sqn, 2 RTR	DAC/1
M	ROCV Procurement Letter dated 20 Jul 04	Major [REDACTED] RA HQ Land Command - CD Branch	RQJS/1
M	OP TELIC Vehicle Recognition Aide Memoire - Army Code 71799, Issue 1.0: Mar 03	Major [REDACTED] RA HQ Land Command - CD Branch	RQJS/2
M	Tapes of Interview with Colonel WGC (Retd) [REDACTED], (A1 & A2)	The Board	BOI/01
M	Tapes of Interview with Major [REDACTED], (A3 & A4)	The Board	BOI/02
M	Tapes of Interview with Lt Col [REDACTED], (A5 & A6)	The Board	BOI/03
M	Tapes of Interview with LCpl [REDACTED], (A7 & A8)	The Board	BOI/04
M	Tapes of Interview with Tpr [REDACTED], (A9)	The Board	BOI/05
M	Tapes of Interview with Sgt [REDACTED], (A10, A11 & A12)	The Board	BOI/06