Defence
Safety Authority

Service Inquiry

Death of a Soldier following animal attack in Liwonde National Park - Malawi

5 May 2019

Defence Safety Authority

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PART 1.1

Covering Note & Glossary

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PART 1.1 – COVERING NOTE

DSA/SI/02/19/MALAWI

Jun 20

DG DSA

SERVICE INQUIRY INVESTIGATION INTO THE DEATH OF GUARDSMAN MATHEW TALBOT FOLLOWING AN ATTACK BY AN ELEPHANT IN MALAWI ON 5 MAY 2019

1. The Service Inquiry Panel assembled at Abbey Wood, on the 23 May 19 by order of the DG DSA for the purpose of investigating the incident resulting in the death of Guardsman (Gdsm) Mathew Talbot of the 1st Battalion the Coldstream Guards (1 COLDM GDS). His tragic death occurred on the 5 May 2019 following an attack by an elephant in Liwonde National Park (LNP) in Malawi whilst he was conducting patrols to support counter the illegal wildlife trade in Africa. The aim of the Service Inquiry is to make recommendations in order to prevent a recurrence. The Panel has concluded its investigation and submits the Service Inquiry report for the Convening Authority's consideration.

2. The following inquiry papers are enclosed:

Part 1 REPORT Part 1.1 Covering Note and Glossary Part 1.2 Convening Orders & TORs Part 1.3 Narrative of Events Part 1.4 Findings Part 1.5 Recommendations Part 1.6 Convening Authority Comments	Part 2 RECORD OF PROCEEDINGS Part 2.1 Diary of Events Part 2.2 List of Witnesses Part 2.3 Witnesses Statements Part 2.4 List of Attendees Part 2.5 List of Exhibits Part 2.6 Exhibits Part 2.7 List of Annexes Part 2.8 Annexes Part 2.9 Schedule of Matters Not Germane to the Inquiry Part 2.10 Master Schedule

PRESIDENT

[Signature]

[redacted]
Lieutenant Colonel Royal Marines
President
Malawi SI

MEMBERS

[Signature]

[redacted]
Captain Royal Ghurka Rifles
Training Member
Malawi SI

[Signature]

[redacted]
Warrant Officer Royal Air Force
Medical Member
Malawi SI

GLOSSARY

1 COLDM GDS	1st Battalion the Coldstream Guards
1 (UK) Div	1st (United Kingdom) Division
11 Bde	11th Infantry Brigade
ACDS (MSDE)	Assistant Chief of Defence Staff (Military Strategic Defence Engagement)
ACMT	Annual Combat Marksmandship Test
ACOG	Advanced Combat Optical Gunsight
ACSO	Army Command Standing Orders
AFC	Army Foundation College
AJP	Allied Joint Publication
ALARP	As Low As Reasonably Practicable
AO	Area of Operations
APSG	Army Personnel Services Group
ASSESSREPS	Assessment Reports
BATLS	Battlefield Advanced Trauma Life Support
Bde	Brigade
Bn	Battalion
BPST (A)	British Peace Support Team (Africa)
Brig	Brigadier
C2	Command and Control
Capt	Captain
CASEVAC	Casulaty Evacuation
CFA	Commander Field Army
CGS	Chief of the General Staff
CIWT	Counter-Illegal Wildlife Trade
CMA	Competant Medical Authority
CMT	Combat Medical Technician
CO	Commanding Officer
Col	Colonel
Comms	Communications
CONOPS	Concept of Operations
COS	Chief of Staff
Cpl	Corporal
CRSV	Conflict Related Sexual Violence
CSgt	Colour Sergeant
CSM	Company Sergeant Major
DA	Defence Attache
DAIB	Defence Accident Investigation Branch
DCC	Dismounted Close Combat
DCDS (MSO)	Deputy Chief of Defence Staff (Military Strategic Operations)
DCOS	Deputy Chief of Staff
DCS	Damage Control Surgery
DDH	Delivery Duty Holder
Defra	Department for Environment, Food and Rural Affairs
Dfid	Department for International Development
DG	Director General
DH	Duty Holding
DINs	Defence Instructions and Notices
Div	Division
DLCH	Daeyang Luke Charitable Hospital
DMS	Defence Medical Services
DMSR	Defence Medical Services Regulator

DoC	Duty of Care
DROs	Daily Routine Orders
DSA	Defence Safety Authority
EFC	Enhanced Field Care
EHLS	Emergency Helicopter Landing Site
EHO	Environmental Health Officer
FCO	Foreign and Commonwealth Office
FP	Force Protection
FRAGO	Fragmentory Orders
FTX	Final Exercise
GDMO	General Duties Medical Officer
Gdsm	Guardsman
GOC	Genral Officer Commanding
GSA	Ground Sign Awareness
Hd	Head
HLS	Helicopter Landing Site
HPCP	Health and Care Professions Council
HQ	Headquarters
hrs	Hours
HS&EP	Health, Safety and Environmental Protection
IA	Immediate Action
IO	Intraosseous
IPCC	Intergovernmental Panel on Climate Change
ISOS	International Save Our Souls
ISS	Injury Severity Score
JADTEU	Joint Air Delivery Test and Evaluation Unit
JNCO	Junior Non-Commissioned Officer
JSP	Joint Services Publication
km	Kilometres
L129A1	Sharpshooter Rifle
LA	Learning Account
LCpl	Lance Corporal
LR 130	Land Rover 130
LSgt	Lance Sergeant
Lt	Lieutenant
Lt Col	Lieutenant Colonel
LUP	Lay Up Point
Maj	Major
Maj Gen	Major General
MAL	Malawi
MATTs	Military Annual Training Tests
MDNPQ	Malawi Department for National Parks and Wildlife
Med	Medical
MFR	Mangochi Forest Reserve
mins	Minutes
MinSub	Ministerial Submission
MOD	Ministry of Defence
MOD	Medical Officer
MST	Mission Specific Training
MTF	Medical Treatment Facility
NATO	North Atlantic Treaty Organisation
NGO	Non-Governmental Organisation

OC	Officer Commanding
ODH	Operational Duty Holder
Op	Operation
OPCOM	Operational Command
OPCP	Operational Patient Care Pathway
OpO	Operational Order
Ops Offr	Operations Officer
ORBAT	Order of Battle
OTFC	Oral Transmucosal Fentanyl Citrate
PDR	Post-Deployment Record
PDT	Pre-Deployment Training
PFC	Prolonged Field Care
PHEC	Pre-Hospital Emergency Care
PJHQ	Permanent Joint Headquarters
Plt	Platoon
PoW	Point of Wounding
PPSI	Permanent President Service Inquiries
QRF	Quick Reaction Force
RAMC	Royal Army Medical Corps
Recce	Reconnaisance
REME	Royal Electrical and Mechanical Engineers
RGR	Royal Gurkha Rifles
RMO	Regimental Medical Officer
RMP	Royal Military Police
RMR	Ruggedised Miniature Reflex
ROE	Rules Of Engagement
RSOI	Reception Staging and Onward Integration
RTI	Road Traffic Incident
RtL	Risk to Life
RV	Rendevous
SAT Phone	Satellite Phone
SDH	Senior Duty Holder
Sgt	Sergeant
SI	Service Inquiry
SMEAC	Situation, Mission, Execution, Administration, Communication
SO1	Staff Officer Level 1
SO2	Staff Officer Level 2
SO3	Staff Officer Level 3
SOE	Safe Operating Environment
SofS	Secretary of State
SOPs	Standard Operating Procedures
SOR	Statement Of Readiness
SQEP	Suitably Qualified and Experienced Person
SSOT	Safe Systems Of Training
SSOW	Safe Systems Of Work
STTT	Short Term Training Team
TFC	Tactical Field Care
TLS	Through Life Support
TNA	Training Needs Analysis
TORs	Terms of Reference
TXA	Tranexamic Acid
UK	United Kingdom
USA	Urgent Safety Advice

USACOL	Upper Shire Association for the Conservation of Liwonde National Park
WHT	Weapon Handling Test
WO2	Warrant Officer Class 2

PART 1.2

Convening Order

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Defence Safety Authority

Service Inquiry Convening Order

23 May 19

SI President	Hd DAIB	DAIB Mentor
SI Members	DSA MAA Legad	DAIB Office Manager

Copy to:

PS/SofS	Sec/CNS	DSA DMSR Hd
PS/Min(AF)	MA/CGS	DSA DLSR TL
PS/Min(DPV)	PSO/CAS	DDC Dir
PS/Min(DP)	PSO/COMD JFC	DDC Head of News
PS/PUS	MA/CJO	DDC PR News Army
DPSO/CDS	MA/DCGS	APSG BAS SO1
MA/VCDS	MA/CFA	

DSA DG/SI/02/19 – CONVENING ORDER FOR THE SERVICE INQUIRY INTO THE DEATH OF A SOLDIER OF THE 1ST BATTALION COLDSTREAM GUARDS DURING A COUNTER ILLEGAL WILDLIFE TRADE (CIWT) ANTI-POACHING PATROL IN MALAWI ON 5 MAY 19

1. In accordance with Section 343 of Armed Forces Act 2006 and in accordance with JSP 832 – Guide to Service Inquiries (Issue 1.0 Oct 08), the Director General, Defence Safety Authority (DG DSA) has elected to convene a Service Inquiry (SI).

2. The purpose of this SI is to investigate the circumstances surrounding the incident and to make recommendations in order to prevent recurrence.

3. The SI Panel will commence administrative briefing at 1400 and will be formally convened by the DG at 1500 in Juniper Building, DSA Abbey Wood North on Thursday 23 May 2019.

4. The SI Panel comprises:

President: **Lieutenant Colonel** [redacted]
Members: **Captain** [redacted]
Warrant Officer [redacted]

5. The legal advisor to the SI is **Wing Commander** [redacted] **RAF** (DSA-MAA-LEGAD) and technical investigation/inquiry support is to be provided by the Defence Accident Investigation Branch (DAIB).

6. The SI is to investigate and report on the facts relating to the matters specified in its Terms of Reference (TOR) and otherwise to comply with those TOR (at Annex A). It is to record all evidence and express opinions as directed in the TOR.

7. Attendance at the SI by advisors/observers is limited to the following:

Head Defence AIB – Unrestricted Attendance.
Defence AIB investigators in their capacity as advisors to the SI Panel – Unrestricted Attendance.
Human Factors Advisors from the Army Personnel Research Capability seconded to provide specialist advice to the Panel and DAIB – Attendance appropriate to the consultation service being afforded.

8. The SI Panel will initially undertake induction training at the DAIB facility at Andover shortly after convening. Thereafter, permanent working accommodation, equipment and assistance suitable for the nature and duration of the SI will be requested at a location decided by the SI President in due course.

9. Reasonable costs will be borne by DG DSA under UIN [redacted]

Original Signed

S C Gray CB OBE FREng
Air Marshal
DG DSA – Convening Authority

Annex:

A. Terms of Reference for the Service Inquiry into the death of a soldier of the 1st Battalion Coldstream Guards during a Counter Illegal Wildlife Trade (CIWT) anti-poaching patrol in Malawi on 5 May 19.

Annex A To
DSA DG/SI/02/19 Convening Order
Dated 23 May 19

TERMS OF REFERENCE FOR THE SERVICE INQUIRY INTO THE DEATH OF A SOLDIER OF THE 1ST BATTALION COLDSTREAM GUARDS DURING A COUNTER ILLEGAL WILDLIFE TRADE (CIWT) ANTI-POACHING PATROL IN MALAWI ON 5 MAY 19

1. As the nominated Inquiry Panel for the subject SI, you are to:

a. Investigate and, if possible, determine the cause of the accident, together with any contributory, aggravating and other factors and observations.

b. Ascertain whether personnel involved were acting in the normal course of their duties and whether the issued Personal Protection Equipment that was worn by the patrol team was appropriate, sufficient and fit for purpose.

c. Examine safety procedures and processes for OP CORDED and the designated patrol area involved, including orders, SOPs and instructions and any other relevant documents issued. Consider applicability, suitability, relevance and the level of compliance.

d. Determine the status of all relevant vehicles, weapons and equipment utilised in OP CORDED. Examine maintenance schedules for the equipment. Comment on whether these were appropriately maintained and report any defects or deficiencies identified.

e. Examine whether operating hazards have been correctly identified for OP CORDED and how Risk to Life of personnel deployed was assessed, understood, managed and accepted. Review the levels of authority and supervision covering the task when the incident occurred. Determine whether risk assessments were appropriate and considered at the correct level throughout the full Chain of Command.

f. Examine the Duty Holder construct relevant to the unit involved and how it was implemented in theatre for UK Nationals by the relevant Duty Holders. Examine the risk management relationship activity between the MOD and DEFRA. Examine the governance and assurance for each activity to include examining if safety risks associated with the activity were properly identified and controlled in accordance with the Secretary of State's Statement on Health and Safety (H&S) for UK Forces and DSA 01.1 & DSA 01.2. The equivalent H&S procedures for other participating nations should be examined to assess coherence.

g. Establish the level of training, including familiarity with equipment and procedures, competencies, qualifications and currency of personnel involved in the delivery of OP CORDED objectives.

h. Identify if the levels of planning and preparation were commensurate with the activities' objectives.

i. Examine the Command and Control in theatre with particular emphasis on Duty of Care for civilians and military personnel from all participating Nations and identify which parties are responsible for ensuring that the Duty of Care is maintained for civilian and military personnel and whether this accords with other land defence engagement activities.

j. Investigate and comment on relevant fatigue implications of individuals' activities prior to the matter under investigation and on any Human Factors that may have played a part in this incident.

k. Assess any Health and Safety at Work and Environmental Protection implications in line with JSP 375 and JSP 418.

l. Determine and comment on any broader organisational and/or resource factors.

m. Investigate whether there have been similar related incidents and comment on whether lessons identified from these previous incidents have been learned.

n. Report and make appropriate recommendations to DG DSA.

2. The investigation should not seek to attribute blame and you should use JSP 832 Guide to Service Inquiries and DSA 03.10 as guidance for the conduct of your inquiry. You are to report immediately to the DG DSA should you have cause to believe a criminal or Service Offence has occurred.

3. If at any stage the Panel discover something they perceive to be a continuing hazard presenting a risk to the safety of personnel or equipment, the President should alert DG DSA without delay to initiate remedial actions. Consideration should also be given to raising an Urgent Safety Advice note.

4. These Terms of Reference have been designed to be wide ranging in order to ensure that you have the freedom to investigate wherever the evidence leads.

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PART 1.3

Narrative of Events

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PART 1.3 – NARRATIVE OF EVENTS

All times GMT + 2.

Synopsis

1.3.1. On 5 May 2019, personnel from 1st Battalion (Bn), The Coldstream Guards (1 COLDM GDS), part of 11th Infantry Brigade (11 Bde), were conducting training patrols with the African Park Rangers (APR) as part of Operation (Op) CORDED, in Malawi, Africa. Two personnel from the 1 COLDM GDS Training Team and three APRs were conducting an anti-poaching patrol in Liwonde National Park (LNP), when the patrol encountered a herd of elephants and was charged by a single elephant. Whilst attempting to evade the elephant, one of the patrol members, Guardsman (Gdsm) Mathew Talbot, suffered fatal injuries.

Witness 1
Witness 10
Witness 11
Witness 12
Witness 13
Exhibit 1
Exhibit 74

Background

1.3.2. Op CORDED is a Ministry of Defence (MOD) delivered, Department for Environment, Food and Rural Affairs (Defra) funded counter-poaching activity, in support of a wider government Counter-Illegal Wildlife Trade (CIWT) programme. 11 Bde is responsible for the delivery of CIWT activity on behalf of the British Army and UK Defence. The operation sees UK Service personnel train and partner APRs and aims to disrupt the illegal wildlife trade thereby reducing illicit funding by improving the security of the animals at source. Prior to Op CORDED the task was known as Project BEEKEEPER, under which there were two deployments to Malawi: Malawi One (MAL 1), from August to November 2017 and Malawi Two (MAL 2), from May to October 2018. The deployment was operationalised by 11 Bde for the deployment on Malawi Three (MAL 3) under the name Op CORDED, vice Project BEEKEEPER. The operation was focused on LNP.

Witness 17
Witness 29
Witness 30
Exhibit 62
Exhibit 44

1.3.3. LNP is in the southern region of Malawi, just south of Lake Malawi, near the Mozambique border. Figure 1.3.1 shows the position of the park in Malawi and relative to neighbouring countries and the location of Mwaiwathu Hospital in Blantyre[1]. It lies largely within the Machinga and Mangochi Districts. The Balaka District lies along its western border. The Park covers 548 square kilometres of woodlands and dry savannah. A 30 kilometre (km) section of the Shire River runs through the Park, including a section of the shore of Lake Malombe, 20 km south of Lake Malawi. A section was added in 1977 on the Northern edge of the Park which connects it with Mangochi Forest Reserve (MFR). LNP, and the adjoining MFR, are managed by African Parks[2,3], in collaboration with local communities, represented by the Upper Shire Association for the Conservation of LNP (USACOL) and 31

[1] Mwaiwathu Hospital was the designated hospital of the required UK standards to which UK casualties would be taken.

[2] African Parks is a non-profit conservation organisation that takes on the complete responsibility for the rehabilitation and long-term management of national parks in partnership with governments and local communities. They currently manage 16 national parks and protected areas in 10 countries covering over 12 million hectares: Benin, Central African Republic, Chad, the Democratic Republic of Congo, Malawi, Mozambique, the Republic of Congo, Rwanda, Zambia and Zimbabwe.

[3] www.africanparks.org

Village Natural Resources Committees surrounding Liwonde. Liwonde has a 129 km perimeter, which was unfenced until the non-profit organisation African Parks constructed a fully fenced border in 2015. The green shaded area inside the red circle in Figure 1.3.1 and enlarged in Figure 1.3.2, shows the area the Park covers. Figure 1.3.2 shows the location of the Ranger Camp from which the Short-Term Training Team (STTT) was working, the incident site and the main gate of the Park.

Figure 1.3. 1. Liwonde National Park location map

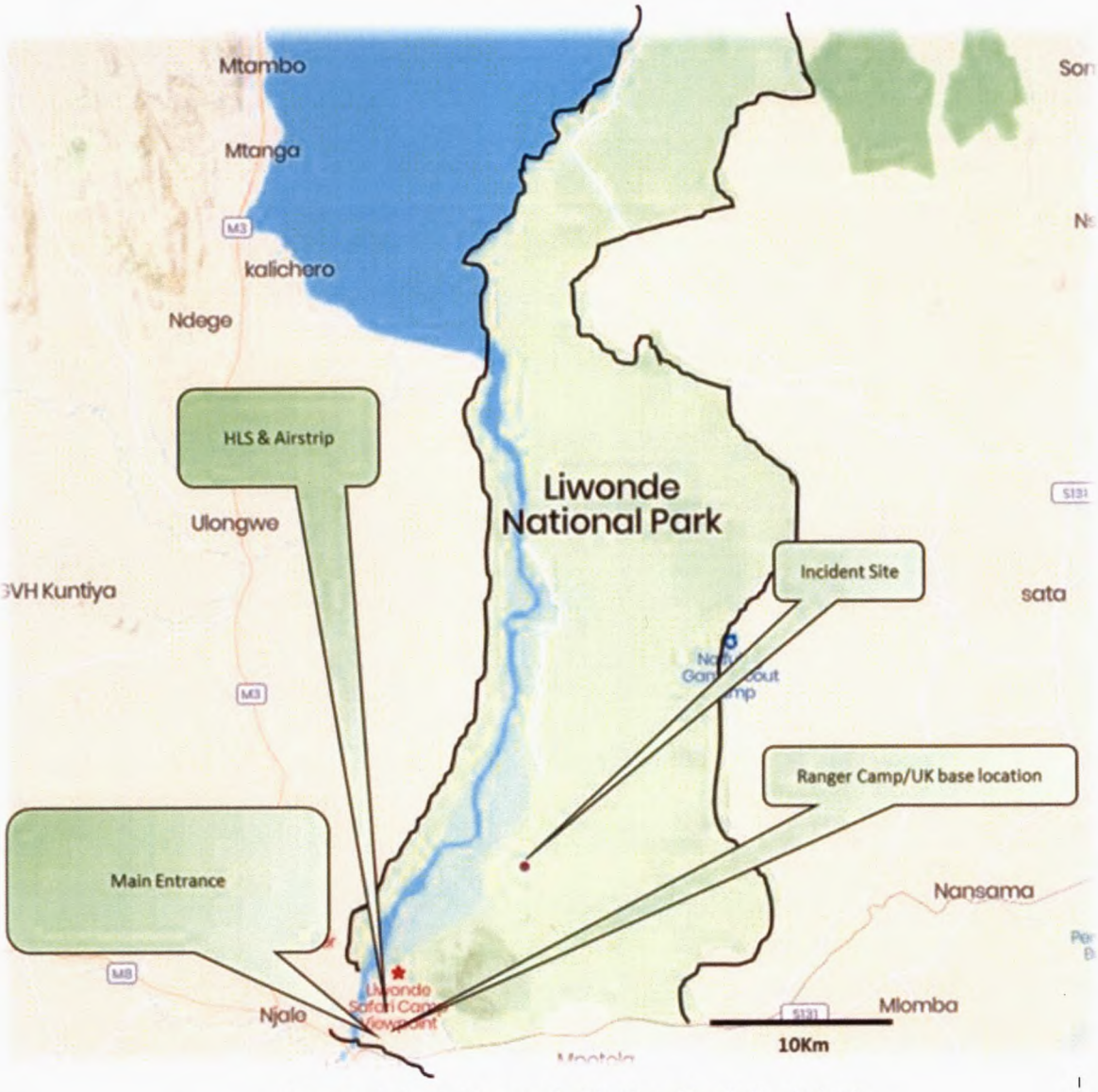

Figure 1.3. 2. Liwonde Nation Park in detail

Key Organisations involved

1.3.4. **Defra**. Defra is the UK Government's department responsible for safeguarding the natural environment, supporting the food and farming industry and sustaining a thriving rural economy. Defra's broad remit means they play a major role in people's day-to-day life, from the food they eat and the air they breathe, to the water they drink. The United Kingdom (UK) government, through Defra are also reputed as world leaders in countering the illegal wildlife trade. The illegal wildlife trade is a global crisis involving organised criminal networks. It generates around £17 billion pounds of illicit funds per year and threatens many species with extinction. It also takes money away from local communities. Under the 25-year

Witness 29
Witness 30
Exhibit 30
Exhibit 31
Exhibit 32
Exhibit 33
Exhibit 34
Exhibit 35
Exhibit 36

environment plan[4] the UK government committed to strengthening partnerships to tackle illegal wildlife trade, including investigating the feasibility of an anti-poaching taskforce. The Government hosted the London 2018 Illegal Wildlife Trade conference. However, the UK's involvement with countering the illegal wildlife trade, and the global leadership, dates back to the London conference held in 2014. In order to strengthen this commitment to CIWT, Defra requested assistance from the MOD to support the CIWT programme in Africa. It also provided the funding for the operation. The MOD agreed to Defra's request for assistance and delegated responsibility for delivering Op CORDED to the Army (Chief of the General Staff (CGS)). In turn the CGS delegated responsibility for CIWT activity to 1st United Kingdom Division (1 (UK) Div). Exhibit 37 Exhibit 58 Exhibit 59 Exhibit 60 Exhibit 61

1.3.5. **1st (UK) Division (1 (UK) Div)**. 1 (UK) Div provided the higher headquarters' operational planning and oversight for Op CORDED. The General Officer Commanding (GOC) 1 (UK) Div was the nominated 2-star commander and due to the risk to life (RtL) assessment was also the designated Operational Duty Holder (ODH). As such he was responsible for all decisions made at the operational level and was the risk holder for the deployment. An ODH is a Suitably Qualified & Experienced Person (SQEP) who has formal delegation from the Senior Duty Holder (SDH) for the delivery of RtL activities within defined boundaries. In this case the SDH was the CGS, who is the head of the Army. Duty holders must have direct and ready access to their superior Duty Holder. Exhibit 40 Exhibit 41 Exhibit 62

1.3.6. **11 Infantry Brigade**. 11 Bde is responsible for the delivery of operations in South East Africa. They provided the oversight, planning and resourcing for Op CORDED and support to 1 COLDM GDS. Exhibit 43

Individuals involved in the patrol

1.3.7. **Guardsman Mathew Talbot**. Gdsm Talbot joined the Army in September 2013. He completed his basic training at Army Foundation College (AFC) Harrogate and the Infantry Training Centre in Catterick before joining 1 COLDM GDS based in Windsor. Prior to serving on Op CORDED, he was assigned to Number 7 Company of 1 COLDM GDS, conducting ceremonial duties in London. He had also taken part in Ex ASKARI STORM in Kenya in 2018 as part of the 1st Battalion, The Irish Guards Battle Group. Op CORDED was his first operational tour. He completed all pre-training with the Op CORDED team and all in-country Reception, Staging and Onward Integration (RSOI) training. He was declared medically fit to deploy on 2 March 2019. Prior to the incident he had been involved in all aspects of the operation, including training delivery and partnered patrols. At the time of the incident Gdsm Talbot was number 2 in the patrol, behind the point man, who was an APR. Figure 1.3.3 shows the order of march for the patrol. Witness 1 Exhibit 2 Exhibit 4 Exhibit 75

1.3.8. **Soldier A**. Soldier A was a Lance Sergeant (LSgt) of 1 COLDM GDS. He Witness 1

[4] UK Government's 25 year environment plan
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf

had arrived in Malawi on 3 March 2019 and was the Patrol Commander during the incident in which Gdsm Talbot died. Soldier A was number 3 in the patrol and as a qualified team medic provided initial first aid to Gdsm Talbot.

1.3.9. **African Park Ranger 1.** APR 1 had been a Park Ranger for 4 years and was number 4 in the patrol. Witness 11

1.3.10. **African Park Ranger 2**. APR 2 had been a Park Ranger for 13 months and was number 1 in the patrol and lead scout. Witness 12

1.3.11. **African Park Ranger 3**. APR 3 had been a Park Ranger for 5 months and was number 5 in the patrol. Witness 13

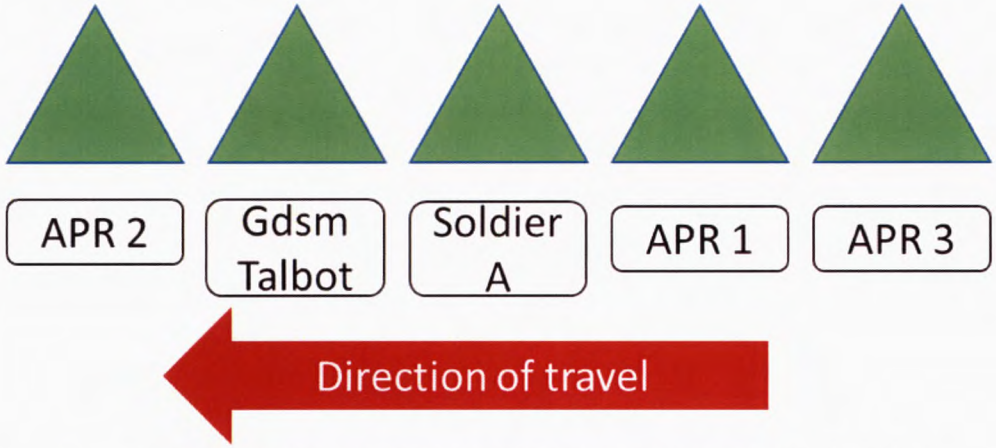

Figure 1.3. 3. Patrol order of march at the time of the incident.

Individuals involved in the medical care of Gdsm Talbot

1.3.12. **Soldier B.** Soldier B was a Lance Corporal (LCpl) Combat Medical Technician (CMT) of the Royal Army Medical Corps (RAMC) attached to 1 COLDM GDS. He arrived in Malawi on 3 March 2019 and was the first CMT in attendance following the incident. Witness 6

1.3.13. **Soldier C.** Soldier C was a Corporal (Cpl) CMT of the RAMC attached to 1 COLDM GDS. He arrived in Malawi on 3 March 2019 and was the second CMT in attendance at the incident. Witness 2

1.3.14. **Soldier D.** Soldier D was a RAMC Staff Sergeant (SSgt) CMT and a qualified Paramedic registered with the Health & Care Professions Council (HCPC), attached to 1 COLDM GDS for MAL 3. He arrived in Malawi on 3 March 2019. He was the third CMT in attendance at the incident. Witness 10

Individuals acting as supporting personnel during the incident

1.3.15. **Soldier E.** Soldier E was a Cpl from the Royal Gurkha Rifles (RGR) Witness 3

attached to 1 COLDM GDS. He arrived in Malawi on 3 March 2019 and was the escort vehicle[5] commander on the day of the incident.

1.3.16. **Soldier F.** Soldier F was a Sergeant (Sgt) assigned to 1 COLDM GDS. He arrived in Malawi on 26 February 2019 and was Team 2 Sgt during the MAL 3 deployment. He was the driver for Soldier B on the day of the incident. Witness 7

1.3.17. **Soldier G.** Soldier G was a LCpl of the Royal Electrical & Mechanical Engineers (REME). The CO of 1 COLD GDS acted as the primus inter pares to his Commanding Officer to ensure his duty of care. He arrived in Malawi on 26 February 2019 as the vehicle mechanic and acted as the driver for the Paramedic, (Soldier D). Witness 9

Individuals involved in the in-theatre coordination of the incident

1.3.18. **Officer Commanding (OC) Short Term Training Team (STTT).** The OC STTT was a Major (Maj) assigned to 1 COLDM GDS. He had been responsible for the planning and preparation of personnel deploying on MAL 3. He arrived in Malawi on 26 February 2019. At the time of the incident he was deployed further north conducting reconnaissance for future deployment of troops to the northern parks. He commanded the incident remotely via mobile phone. Witness 5

1.3.19. **Operations Officer (Ops Offr).** The Ops Offr was a Captain (Capt) assigned to 1 COLDM GDS. He arrived in Malawi on 3 March 2019 and was the operations room commander on the day of the incident. Witness 4

1.3.20. **Company Sergeant Major (CSM).** The CSM was a Warrant Officer Class 2 (WO2) assigned to 1 COLDM GDS. He had assisted in organising and planning pre-deployment training and arrived in Malawi on 3 March 2019. At the time of the incident he was deployed with the OC STTT. Witness 8

Key individual at Battalion HQ responsible for delivering MAL 3

1.3.21. **Commanding Officer 1 COLDM GDS.** CO 1 COLDM GDS was a Lieutenant Colonel (Lt Col) and had been in this post since December 2017. During Op CORDED MAL 3 he was the Delivery Duty Holder (DDH) and therefore at the lowest of the three levels of Duty Holding. Witness 14

Individuals involved at Brigade HQ for the planning of MAL 3

1.3.22. **Commander 11 Bde.** Commander 11 Bde was a Brigadier (Brig) and had been in post since August 2018. During Op CORDED he provided oversight[6] of the DDH. Witness 17

[5] Escort vehicle was a Land Rover 110

1.3.23. **11 Bde Chief of Staff (COS).** The 11 Bde COS was a Maj assigned to 11 Bde HQ. He was responsible for the coordination of the Bde HQ staff in order to plan and deliver the Bde Commander's plan for Op CORDED. Witness 18

1.3.24. **11 Bde Deputy Chief of Staff (DCOS).** The 11 Bde DCOS was a Maj assigned to 11 Bde HQ. The DCOS was responsible for the logistics, welfare, medical and sustainment of the operation. Witness 16

1.3.25. **11 Bde Principal Planning Officers.** The principal G5 Plans officer for 11 Bde was a Maj assisted by a Capt on attachment from the Queens Dragoon Guards (QDG). Witness 20 Witness 22

1.3.26. **11 Bde SO3 Counter-Poaching/OC MAL 2.** The 11 Bde SO3 Counter Poaching was a Capt assigned to 11 Bde HQ. He had also been the OC for MAL 2 and deployed to Malawi on 26 February 2019 for a short period to assist MAL 3 in their initial phase of deployment. He assisted the principal planning officer and provided continuity and ideas to improve planning and execution of the operation. Witness 20

1.3.27. **11 Bde SO2 Influence/SO2 Med.** The 11 Bde SO2 Influence/SO2 Medical (Med) was a Maj assigned to 11 Bde HQ. He was an infantry officer and not a medical specialist. He was responsible for drafting the medical plan for MAL 3. Witness 21 Exhibit 18

1.3.28. **11 Bde SO2 Defence Engagement.** The 11 Bde SO2 Defence Engagement (DE) was a Maj assigned to 11 Bde HQ. He provided the link in the Bde HQ to the Defence Attaché (DA) in Harare[7] and the Assistant Chief of Defence Staff Strategy and Policy Defence Engagement (ACDS (DE)) in the MOD HQ. He was the principal G5 Plans officer. Witness 22

1.3.29. **Regimental Medical Officer (RMO) 1 COLDM GDS.** The RMO 1 COLDM GDS was a Maj in the RAMC and a General Practitioner attached to 1 COLDM GDS. RMO 1 COLDM GDS conducted a reconnaissance (recce) to Malawi which included the Daeyang Luke Charitable Hospital in Lilongwe on 1 March 2019. Witness 23

1.3.30. **General Duties Medical Officer (GDMO).** The GDMO was a Capt in the RAMC and was the designated medical officer (MO) for reach-back in the UK. He did not deploy to Malawi. To provide him with support he had access to his superior (the RMO) as the GDMO supervisor in accordance with Defence Instructions & Notices (DINs) 2018DIN01-001. Witness 25 Exhibit 66

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[6] ACSO 3216 states that 'oversight' at the 1* level includes; understanding RtL activities within the Bde, mentor all DDHs' approach to RtL activities and oversee the assurance process by DDHs.

[7] The DA in Harare covers Malawi, Zimbabwe, Botswana and Zambia.

Individuals involved at Divisional HQ for the planning and Duty Holding of MAL 3

1.3.31. **General Officer Commanding 1st United Kingdom Division.** The GOC 1 (UK) Div was a Major General (Maj Gen) who took over the appointment in November 2018. He was not involved with MAL 1 or MAL 2 but was the ODH for MAL 3. Witness 27

1.3.32. **Chief of Staff 1st United Kingdom Division.** The Chief of Staff 1 (UK) Div was in post between September 2016 and May 2019 and therefore was involved from the inception of counter poaching activity in Malawi, from Project BEEKEEPER through to OP CORDED. Witness 24

1.3.33. **Competent Medical Authority (CMA) 1 (UK) Div.** The CMA 1 (UK) Div was a Colonel (Col) in the RAMC who took up post on 4 March 2019. His predecessor was responsible for approving the MAL 3 Med Plan and providing advice to the GOC. The current incumbent continued this role on taking up post. Witness 26

1.3.34. **SO1 Force Protection (FP) 1 (UK) Div.** The SO1 FP 1 (UK) Div was a Civil Servant employed at 1 (UK) Div HQ. He was the senior safety advisor to the GOC and had been involved with MAL 1, MAL 2 and MAL 3, from Project BEEKEEPER to OP CORDED. Witness 28

Individuals responsible at MOD/Government for the policy and planning of MAL 3

1.3.35. **MOD Desk Officer for CIWT**. The MOD Desk Officer for CIWT was a Lt Col of the Royal Marines who had been in post since August 2018. He acted as the Desk Officer for East Africa and Southern Africa Commitments, CIWT & British Peace Support Team (Africa). Witness 29

1.3.36. **Defra Joint Head Illegal Wildlife Trade Team (JHIWTT).** The Defra JHIWTT was a Civil Servant employed by Defra and had been in post since May 2019. Although she joined this team after the incident. She inherited the role as the link between Defra and the MOD. She was supported by another Civil Servant who was also interviewed by the Service Inquiry. Witness 30

Pre-deployment movements and preparation

1.3.37. On 14 December 2018 CO 1 COLDM GDS was given a verbal order from Commander 11 Bde that the Bn was to provide a 29-person STTT to deploy to Malawi. This was shortly followed by a formal notification from 11 Bde. This was the third iteration of this deployment and was called MAL 3. Witness statement 79

1.3.38. The STTT was made up of 22 soldiers from 1 COLDM GDS, including Gdsm Talbot, with 4 attached ranks from 2nd Battalion, The Royal Ghurkha Rifles (2 Witness statement

RGR), (also part of 11 Bde), 1 Royal Military Policeman, 1 Royal Electrical and Mechanical Engineers specialist and 1 Royal Army Medical Corps Paramedic, a total of 29 personnel. 5 and Exhibit 17

1.3.39. 11 Bde set the required training standards and training objectives for the deployment. The OC of the STTT was given the task of designing a training programme to prepare the soldiers for the deployment. On successful completion of each training module every individual had this recorded on their 'Deployment Passport'. The pre-deployment training (PDT) modules included: Military Annual Training Tests (MATTs), Sharpshooter rifle, team medic course, driving matrix test, Conflict Related Sexual Violence (CRSV), operational origins and context, partner organisations, cultural considerations, environmental health, force protection, intelligence briefings, equipment and rations training, personnel and logistics briefings. Exhibit 2

1.3.40. Individual training commenced in the UK on 14 January 2019 and ran until 15 February 2019. This training included a Team Medics Course (14-18 January 2019), Driver Training and Kenyan Matrix Test[8] (21-25 January 2019) and MATTs (4-15 February 2019). The collective PDT began on 18 February 2019 and lasted for 4 days. The final exercise (FTX) did not take place due to the deployment date being brought forward. The FTX was completed on arrival in Malawi as part of the RSOI. The MAL 3 activation group deployed to Malawi on 26 February 2019 and the majority of MAL 3 personnel deployed on 2 March 2019 and conducted RSOI from 4-14 March 2019. This covered the following training objectives: Shooting ranges (zeroing rifles), contractor delivered environmental training (dangerous large animals, patrolling, park standard operating procedures (SOPs), tracking). It also allowed the personnel to acclimatise to the environment and conduct familiarisation patrols. On completion of the RSOI, MAL 3 officially commenced.

Deployment timeline

1.3.41. The table below summarises the key activities timeline of Gdsm Talbot's pre-deployment and deployment activities:

Date (a)	Event (b)
14 Dec 18	1 COLDM GDS 'warned' for deployment to Op CORDED
14-18 Jan 19	Team Medic Course (UK)
21-25 Jan 19	Driver training and Kenyan matrix test & Sharpshooter Weapon Handling Test (WHT) (UK)
4-15 Feb 19	Military Annual Training Tests (MATTs) & Sharpshooter Annual Combat Marksmanship Test (ACMT) (UK)

[8] JSP800 states that if f no test exists, then it is incumbent upon the individual to research the driving conditions and country specific legal requirements before driving for the first time. The 11 Bde Master Driver is qualified to decide that the Kenya Matrix is sufficient in lieu of a country specific matrix test. For additional assurance a pre-deployment brief included driving in the specific areas.

18-21 Feb 19	PDT (UK)
2 Mar 19	Main body deployed to Malawi
4 Mar 19	RSOI started in Malawi
24-29 Mar 19	Comd 11 Bde assurance visit

Table 1.3. 1: Deployment timeline

Op CORDED, MAL 3 mission and patrol methodology

1.3.42. The STTT was tasked to partner with the African Parks (Multinational Conservation Non-Governmental Organisation (NGO)), the Malawi Department for National Parks and Wildlife (MDNPW) and the host nation Ranger Force to develop and improve their CIWT skills in order to reduce poaching activity and disrupt the flow of illegal funds. Exhibit 38

1.3.43. The STTT operated in two teams. One team would deploy on long (8-day) patrols with the APR and remain out overnight in Lay-Up Points (LUPs) for the duration. This increased operational reach and reduced predictability. The second team would deploy on short (1-day) patrols with the APR, returning to the Ranger Camp each day as seen in Figure 1.3.2. They would also conduct in-camp training with the APRs. After 8 days the teams rotated tasks. Each patrol routinely consisted of at least two UK military personnel and at least two but occasionally three APRs and were supported by a CMT and driver in a Land Rover 130 support vehicle acting as an 'ambulance'[9], who would remain within 3 km of the patrols during the day and 1 km at night. Witness 4 Witness 5 Witness 8

1.3.44. The Park was divided up into geographical operations 'boxes' and each patrol would be given specific areas to operate in for the duration of their patrol and would plan their activity according to their orders. The purpose of the operations 'boxes' was to: Ensure that concurrent patrol activity was deconflicted; ensure maximum coverage of the ground within available resources; and to remain within the correct medical evacuation timelines outlined in the medical plan. Figure 1.3.4, taken from the 1 COLDM GDS learning account, shows the operations boxes in use at the time of the incident. Gdsm Talbot's patrol was operating in the black boxes and the incident location is highlighted by the blue star and the yellow arrow denotes the approximate casualty rendezvous (RV) with the CMT, the distance between the incident and the RV was approximately 1.2 km. Witness 4 Exhibit 1

[9] The LR 130 is not a recognised British military ambulance. For Op CORDED it had been fitted with a stretcher and an oxygen cylinder strapped in the back accompanied by a CMT and medical bergan. It was more akin to a safety vehicle not an ambulance.

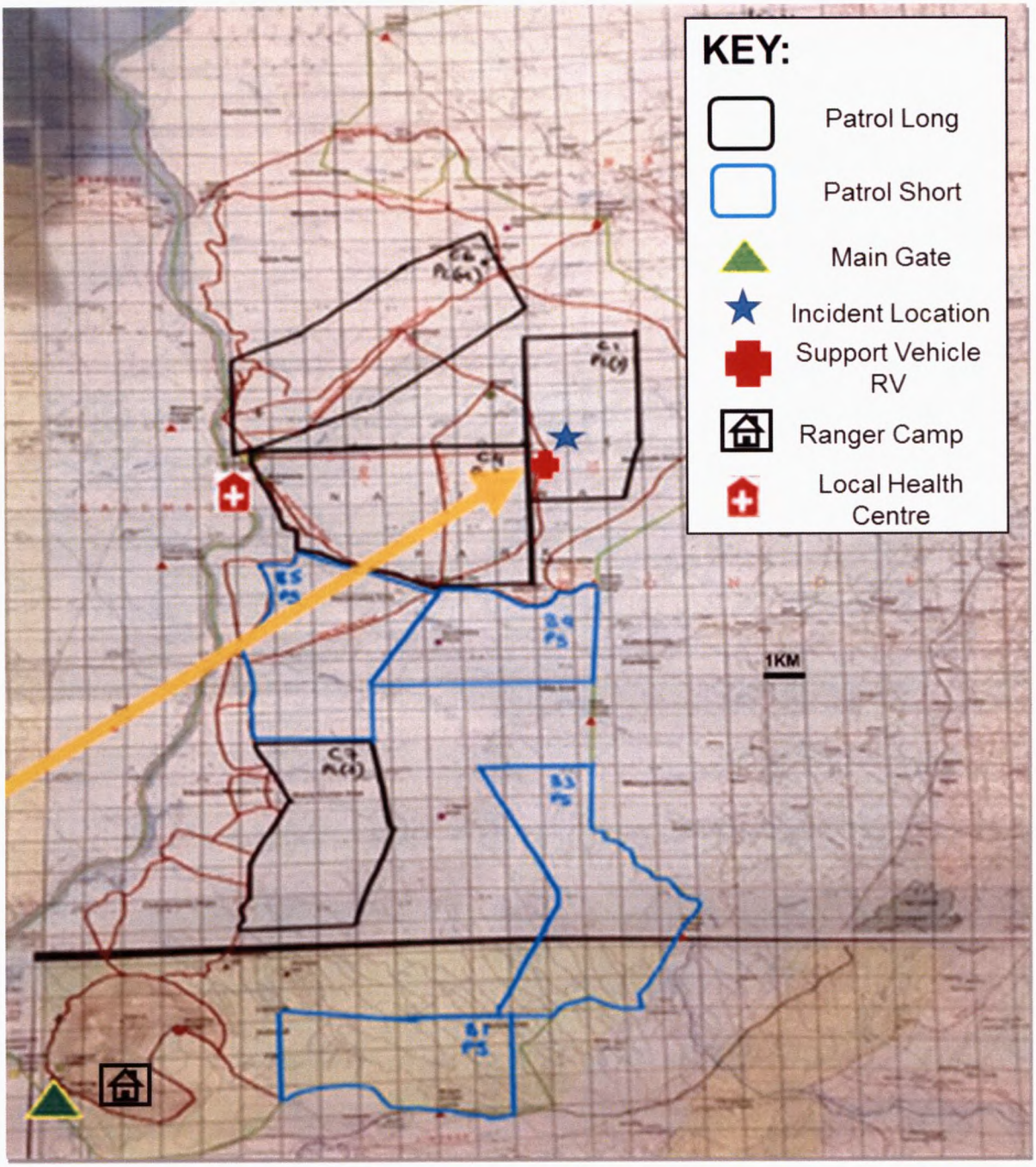

Figure 1.3. 4: Operations boxes

1.3.45. The patrols were working on a medical timeline of '10-1-4'. This was based on policy and believed to be achievable through a casualty evacuation by vehicle. This timeline meant that within 10 minutes (mins) of someone being injured a Team Medic trained person would be administering first aid, up to and including basic lifesaving techniques. After 1 hour from the Point of Wounding (PoW), the casualty would be with a qualified CMT/ paramedic for more advanced life saving and life sustaining medical care. After 4 hours (hrs) from PoW the casualty would be in a hospital to receive damage control surgery (DCS) if the severity of the injuries

Exhibit 12

required this.

1.3.46. Gdsm Talbot, Soldier A and APR 1, 2 and 3 were conducting an 8 day, 'long' patrol. They deployed from the Ranger Camp on 2 May 2019. Prior to the patrol, Gdsm Talbot had sustained a [redacted], which happened after a fall onto a thorn on return from a short patrol. The wound had been cleaned and dressed before Gdsm Talbot deployed on his long patrol, but it would need redressing during the patrol. Arrangements had been made with the CMT to RV at a predesignated grid reference so that the wound could be re-dressed by the CMT. This RV was planned for 5 May 2019. Witness 1 Witness 6

1.3.47. On 4 May 19 the patrol was operating in the southern operations box in the Masangi area, see Figure 1.3.3. The patrol started at 07:00 and was complete by 15:00. During this period the patrol conducted clearance patrols, checked for snares and noted any wildlife in the area of operations. They had also conducted a recce of the route to the pre-arranged RV with the CMT for the treatment of Gdsm Talbot's hand. The patrol established a Lay-Up Point (LUP) prior to last light and conducted post-patrol debriefs, administration and preparation for the next day. Witness 1

Meteorology

1.3.48. On the day of the incident, 5 May 19, the weather was reported to have been sunny with partial cloud and no rain. The maximum temperature was 30°C and the minimum temperature was 18°C. Sunrise was at 05:50 and sunset at 17:22. Moonrise was at 18:06 and moonset at 05:58. There was a 9 km/h ESE wind with gusts up to 10 km/h. There was c65% humidity.

Incident events

1.3.49. Gdsm Talbot was on day 3 of an 8-day patrol. After an initial patrol brief and kit check, the patrol set off from their LUP at around 07:00. At approximately 09:00 they stopped for a 10 to 15 min break before proceeding on the agreed patrol route. At approximately 10:00 on 5 May 2019, the patrol was moving through tall elephant grass (c.2m) and bushes when the lead scout (APR2) identified up to 3 elephants in the tall grass approximately 30 m in front of the patrol. Figure 1.3.5 shows the location of the encounter. Exhibit 1 Exhibit 76 Exhibit 77

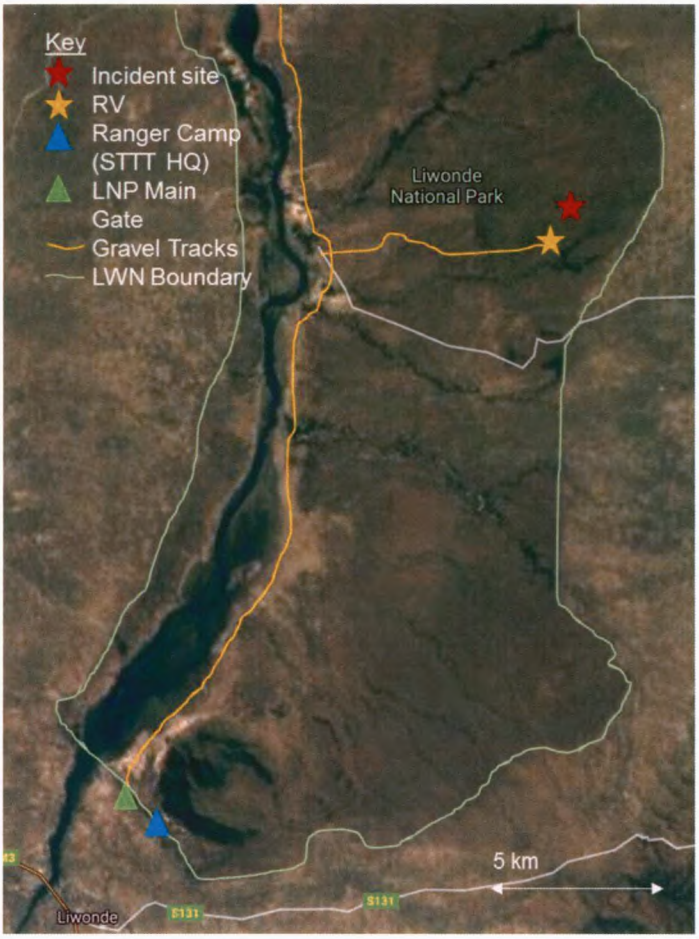

Figure 1.3. 5 Location of incident

1.3.50. The patrol began to withdraw slowly and quietly as per their training, with the aim of 'boxing'[10] around the elephants. At this point, a previously unseen elephant charged through the bushes immediately to the north and into the centre of the patrol, which was in single file. The patrol scattered to avoid the charge, running to the south west, south and east. Soldier A managed to seek refuge in a tree and APRs 1, 2 and 3 dispersed into the bushes. Gdsm Talbot was making for a large tree in a cluster of bushes (see Figure 1.3.6.). Unfortunately, as he was attempting to climb the tree, he was caught by the charging elephant, thrown in the air, then attacked whilst on the ground, sustaining significant injuries.

Witness 1
Witness 11
Witness 12
Witness 13

[10] Boxing around is tactical term describing the action of a patrol moving around an obstacle or potential threat. Moving out at 90 degrees, then forward at 90 degrees and then back in at 90 degrees, covering 3 sides of a box.

Figure 1.3. 6. The tree Gdsm Talbot attempted to climb

1.3.51. Due to his precarious position in a tree, Soldier A could not bring his rifle to bear to fire an aimed and controlled shot nor were warning shots permitted under UK rules of engagement (ROE)[11]. He was able to use a fire cracker[12] which temporarily scared the elephant away. He then climbed down from his tree and moved to begin treating Gdsm Talbot. At this point the whereabouts of the APRs were unknown to Soldier A. After a few minutes another three elephants emerged, forcing Soldier A to pause treatment and return to his tree for his own safety. From here he threw another firecracker, at which point another elephant emerged and attacked again. Soldier A started shouting to the APRs, one of whom returned to the area and fired a round from his rifle. The much louder bang scared away the elephants and Soldier A returned to Gdsm Talbot. He continued with medical care Witness 1

[11] The STTT were operating under standard Rules of Engagement (ROE), Card A. This does not permit warning shots to be fired but does permit the use of force in self-defence or defence of another, using aimed and controlled shots. This was not possible in this instance.

[12] Fire-crackers were locally purchased low power/non-lethal pyrotechnics that when ignited made a loud bang designed to scare but not cause physical harm.

and prepared Gdsm Talbot for the move to the pre-arranged RV, with the assistance of APRs 1 and 3, whilst APR 2 provided local protection. Figure 1.3.7, taken from the 1 COLDM GDS incident 'storyboard', pictorially represents the immediate contact with the elephants.

1.3.52. After initial contact with the single elephant the patrol was engaged in a protracted (20 min) encounter with approximately 20 elephants. Provision of immediate medical care was disrupted by the requirement to maintain the immediate security of the patrol. Witness 1 Exhibit 77

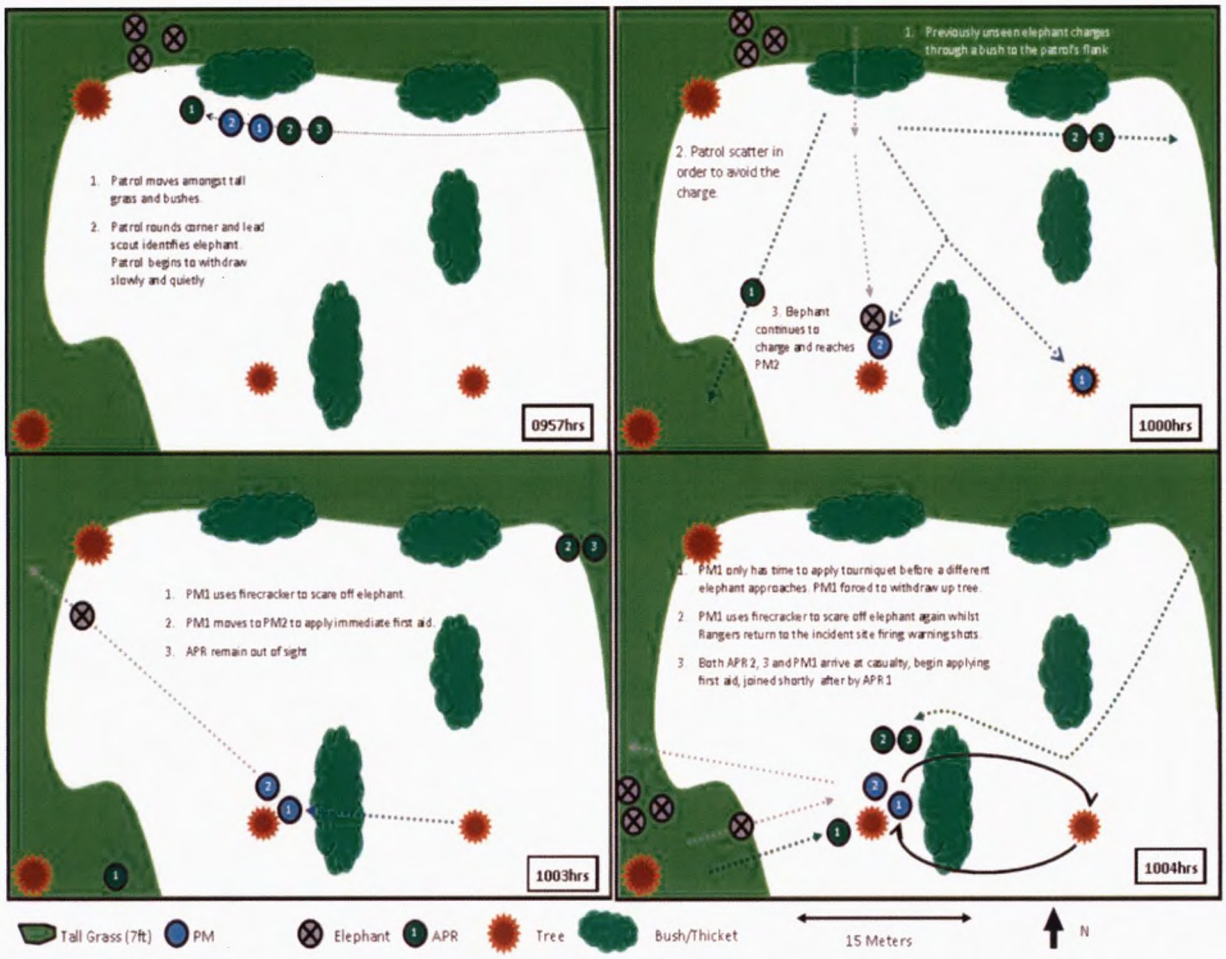

Figure 1.3. 7. Incident storyboard. NB. PM1 refers to Soldier A, PM2 refers to Gdsm Talbot

Post-incident events

1.3.53. At 10:20 Soldier A sent his T1[13] casualty report, referred to as a '9-liner'[14], over the issued Motorola radios to the Ranger Camp. He stated the RV for the Witness 4 Witness 5

[13] A T1 casualty is the highest priority casualty requiring immediate, life-saving medical care.

'ambulance'[15] would be the previously designated RV for the CMT to change the dressing on Gdsm Talbot's hand. Initially communications could not be established with the CMT (Soldier B) in the support vehicle driven by Soldier F. Therefore, a second CMT (Soldier C) and support vehicle, driven by another soldier along with 2 passengers, were despatched from the Ranger Camp at 10:26. Meanwhile at around 10:36, the OC STTT relayed through the Ops Offr that patrol minimise[16] be put in place; this meant that all non-essential movement was ceased. Shortly thereafter, at 10:40 communications were established, and Soldiers B and F deployed from their holding position to the pre-designated RV.

Witness 6
Witness 7
Witness 8
Exhibit 74

1.3.54. At 10:45 the evacuation of the casualty commenced from the PoW to the pre-arranged RV with the CMT and support vehicle. This was conducted by Soldier A with support from APRs 1, 2 and 3 using the issued 'XTRACT2' stretcher (see Figure 1.3.8). The APRs, who were not operating under the same ROE as UK personnel continued to fire warning shots to scare the elephants away as Gdsm Talbot was extracted. Soldier B arrived at the RV and started to move through the bush towards the sound of the warning shots, eventually meeting the patrol where he then guided it back to the RV.

Witness 1

[14] A 9-liner is a casualty report format which provides key information; Location, call-sign, number of patients by urgency, special equipment required, number of patients by type, security, pick-up marking method, nationality/status and mechanism, injury, symptoms, treatment (MIST).

[15] The support vehicle was a Land Rover 130 fitted with a stretcher strapped down in the back.

Figure 1.3. 8. Library photo of the XTRACT 2 stretcher being used on exercise

1.3.55. At 11:15 the patrol, carrying Gdsm Talbot arrived at the support vehicle RV where Soldier B conducted an initial medical survey and continued to administer first aid. Six minutes later Soldier C arrived at the RV in another Land Rover 130 support vehicle. The two CMTs worked together to stabilise Gdsm Talbot in preparation for the vehicle move to the LNP main gate. Gdsm Talbot was placed on the stretcher in the back of the Land Rover, see Figure 1.3.10 and 11. At 11:57 the convoy of two vehicles departed the RV en-route to the LNP main gate. The escort vehicle was in front with Soldier A and the casualty vehicle was second, containing both CMTs and Gdsm Talbot. The CMTs devised a simple communication system with the driver by knocking on the rear of his cab to signal him either to slow down or stop; this allowed more complex medical treatments to be administered. Witness 2 Witness 6

Figure 1.3. 10. Reconstruction of Land Rover 130 support vehicle used for casualty extraction

Figure 1.3. 9. Note prone casualty feet extend beyond the back of the Land Rover. Tail gate has to be down

1.3.56. To enable more complex medical interventions to be given, the CMTs instructed the vehicle to stop twice. This provided a steady platform which allow | Witness 4

them to attempt to stabilise Gdsm Talbot. The terrain continued to hamper the extraction as effective treatment could not be adequately given on the move. This delay prompted the CMTs to request that the Paramedic, Soldier D be deployed forward by vehicle from the Ranger Camp, to assist with the on-going treatment. The request was sent at 12:46 and Soldier D was despatched and met the convoy at 13:04, see Figure 1.3.11. Additional vehicles were then stood-by at the LNP main gate to conduct the onward movement to Mwaiwathu Hospital in Blantyre. The planning time for this leg of the journey, according to the casualty evacuation (CASEVAC) plan was 2 hrs; a distance of approximately 160 km.

1.3.57. Soldier D tried to establish satellite phone communications with the GDMO in the UK for additional advice. The communications link proved unreliable and he had to use his personal mobile phone to establish communications with the GDMO. At 13:20 Gdsm Talbot suffered a [redacted] and at 14:17, following 57 mins of attempted resuscitation, the Paramedic recognised no signs of life were present and treatment was ceased on the advice of the GDMO. Figure 1.3.11 shows the time and distance covered from point of wounding to time of death. At 14:22 the Ops Offr, located at the STTT HQ in the Ranger Camp, received the message that Gdsm Talbot had died. At 14:25 all personnel involved were instructed to return to the Ranger Camp with Gdsm Talbot, a journey of approximately 5 km.

Witness 4
Witness 10
Witness 25

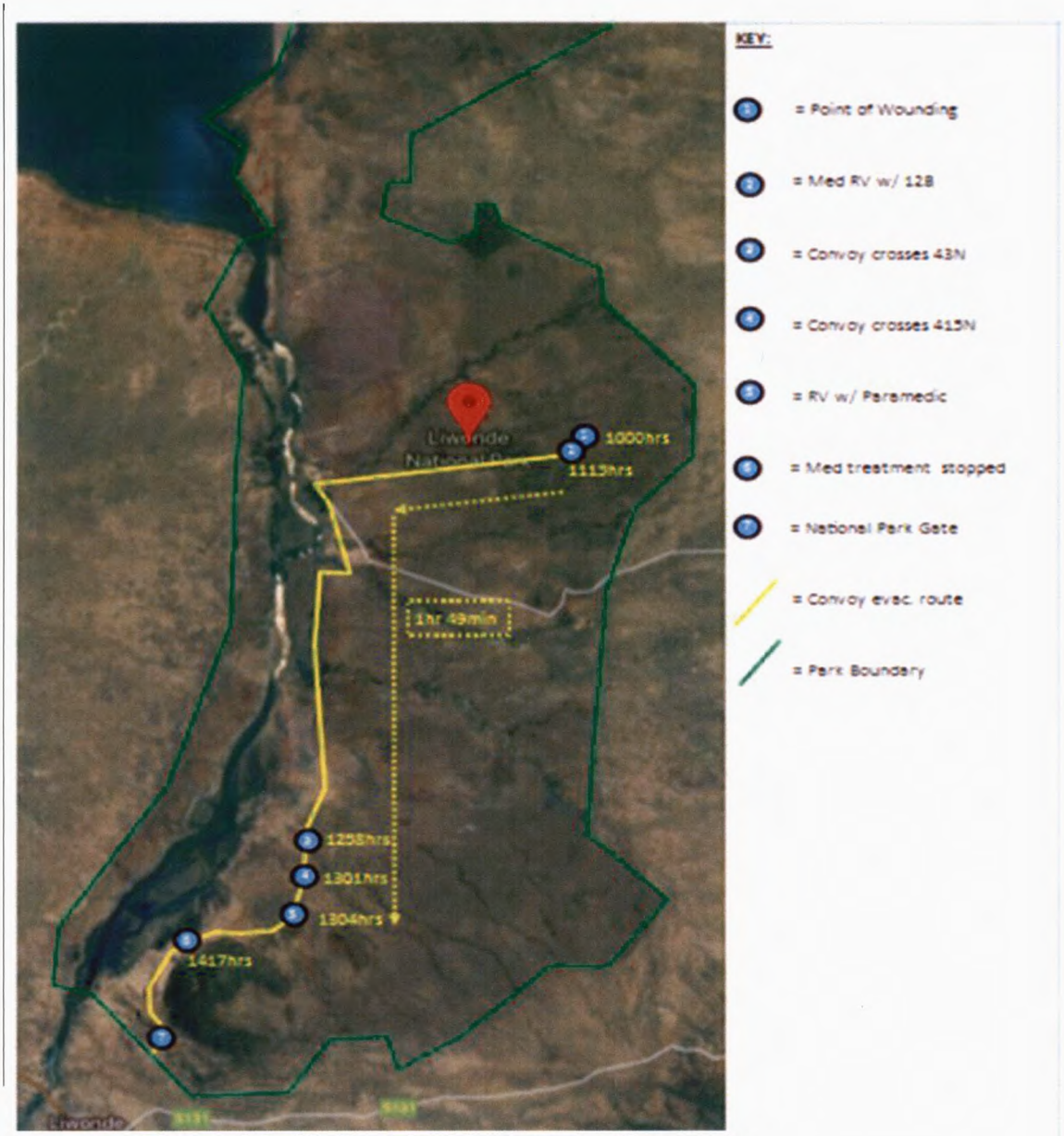

Figure 1.3. 11: Post-incident evacuation route

1.3.58. By this time all the correct reporting protocols and actions had been followed, the higher headquarters had been informed, all other personnel on patrol had been recovered to camp due to the fact all medical cover had been committed to dealing with the incident. Arrangements were made through the UK DA in Harare for Gdsm Talbot to be transferred to the local hospital in Blantyre for official certification of death. The arrangements process took approximately 2 hrs and during this time Gdsm Talbot was covered and protected by members of the STTT before departing with Soldier D and a driver to Mwaiwathu Hospital in Blantyre. Gdsm Talbot arrived at Mwaiwathu Hospital at 18:49 and the officially recorded time of death was 19:26. He was then transported the Queen Elizabeth Hospital in

Witness 5
Witness 6

Blantyre as this was the only hospital that had a mortuary facility.[17] The Service Inquiry Panel noted that as part of the duty of care following the incident, Trauma Risk Management (TRiM) councelling was offered by the chain of command to all personnel involved.

Cause of death

1.3.59. Gdsm Talbot died as a result of complications from [redacted] injuries. The [redacted] Gdsm Talbot also developed [redacted] due to the period of time involved and the environmental conditions (heat and humidity). Exhibit 24 Exhibit 10

Incident timeline

1.3.60. The table below summarises the timeline of the accident: Exhibit 74

Time (a)	Event (b)
10:00	Patrol charged by elephant. Gdsm Talbot seriously injured.
10:20	T1 casualty report and 9 Liner sent. First aid given.
10:36	Patrol MINIMISE activated.
10:40	Comms with Soldier B established and move to RV.
10:45	Movement of casualty to RV.
11:00	Soldier B linked up with the patrol.
11:15	Casualty at RV and initial survey and first aid applied.
11:21	Soldier C arrived at RV and assisted with stabilisation of the casualty.
11:45	Final stabilisation treatment given by Soldiers B and C before vehicle move.
11:57	Patrol and CMTs departed RV in convoy towards main gate of LNP. Paramedic was on standby to meet the patrol at the main gate for onward travel to Mwaiwathu Hospital in Blantyre.
12:46	Paramedic requested to move North to link up with the CMTs and casualty.
13:04	Paramedic met convoy.
13:15	Vehicles prepared to receive a casualty at the main gate of LNP for onward movement.
13:20	Gdsm Talbot suffered a [redacted].
14:17	Following 57 minutes of attempted resuscitation by the CMTs, treatment ceased following advice from GDMO (using reach-

[17] Due to a high population of Muslims in Malawi, many hospitals do not have mortuaries.

[18] [redacted]

	back to the GDMO).
14:25	All personnel directed to move back to Ranger Camp.
18:49	Gdsm Talbot and Paramedic arrived at Mwaiwathu Hospital.
19:26	Officially recorded time of death.

Table 1.3. 2: Incident timeline

PART 1.4

Analysis and Findings

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PART 1.4 – ANALYSIS AND FINDINGS

All times GMT + 2

Introduction

1.4.1. This Service Inquiry (SI) was convened on 23 May 2019 to investigate the circumstances surrounding the death of Guardsman (Gdsm) Mathew Talbot, who died on 5 May 2019 as a result of injuries sustained after being attacked by an elephant whilst on counter-poaching patrols in the Liwonde National Park (LNP), Malawi, Africa. At the time of the incident Gdsm Talbot was assigned to 1st Battalion Coldstream Guards (1 COLDM GDS) and deployed as part of a 29-person Short Term Training Team (STTT). To establish the facts, the SI Panel focused on events leading up to the incident, the incident itself and immediate post-incident actions and addressing the SI's Terms of Reference (TORs).

1.4.2. This part of the report will analyse the evidence that has been gathered and presented in Part 1.3 and will make recommendations and observations. This analysis will be set against the SI's TORs which can be found in Part 1.2. The report will be laid out in five sections as shown in Table 1.4.1.

Section	Subject
1	Genesis and planning
2	Pre-incident activity
3	Patrol methodology
4	The incident and immediate post incident actions
5	Equipment

Table 1.4. 1. Section Content

1.4.3. It is important to state that some of the key factors, observations and recommendations that are found in this SI report had been identified by the Army's own internal investigation and lessons learned process. The Army, specifically 1st United Kingdom Division (1 (UK) Div) and 11 Infantry Brigade (11 Bde) quickly implemented several changes within 8 weeks of the incident. Where these changes have already been implemented there is a footnote against the relevant recommendation. The main reference documents for this are the 1 COLDM GDS Learning Account (LA) dated 20 May 2019 and the LA review completed by the Army Personnel Services Group (APSG), Permanent President Service Inquiries (PPSI). The SI has thoroughly investigated the incident and cross-referenced and analysed the factors identified by the 1 COLDM GDS LA and the supporting report completed by the APSG. Exhibits 1 & 25

1.4.4. The Panel conducted a telephone interview with the Head of Defence Medical Services Regulator (Hd DMSR), who provided a valuable insight and references for the planning of medical timelines. Hd DMSR posed a fundamental question which formed a key part of this inquiry; was it realistic for the type of Exhibit 11

injuries sustained and treatment required to have been foreseen and did the plan provide an effective way of managing these?

Report Methodology

Accident factors

1.4.5. Once an accident factor had been determined to have been present it was then assigned to one the following categories:

a. **Causal factor/s.** 'Causal factors' are those factors which, in isolation or in combination with other causal factors and contextual details, led directly to the incident or accident. Therefore, if a causal factor was removed from the accident sequence, the accident would not have occurred.

b. **Contributory factor/s.** 'Contributory factors' are those factors which made the accident more likely to happen. That is, they did not directly cause the accident. Therefore, if a contributory factor was removed from the accident sequence, the accident may still have occurred.

c. **Aggravating factor/s.** 'Aggravating factors' are those factors which made the outcome of the accident worse. However, aggravating factors do not cause or contribute to the accident. That is, in the absence of the aggravating factor, the accident would still have occurred.

d. **Other factor/s.** 'Other factors' are those factors which, whilst shown to have been present played no part in the accident in question but are noteworthy in that they could contribute to or cause a future accident. Typically, other factors would provide the basis for additional recommendations or observations.

e. **Observations.** Observations are points or issues identified during the investigation that are worthy of note to improve working practices, but which do not relate to the accident being investigated and which could not contribute to or cause future accidents.

Probabilistic language

1.4.6. The probabilistic terminology detailed below clarifies the terms used in this report to communicate levels of uncertainty within the report. It is based on terms published by the Intergovernmental Panel on Climate Change (IPCC) in

their Guidance Note for Consistent Treatment of Uncertainties[1] as well as the ATSB in their paper on Analysis, Causality and Proof in Safety Investigations[2].

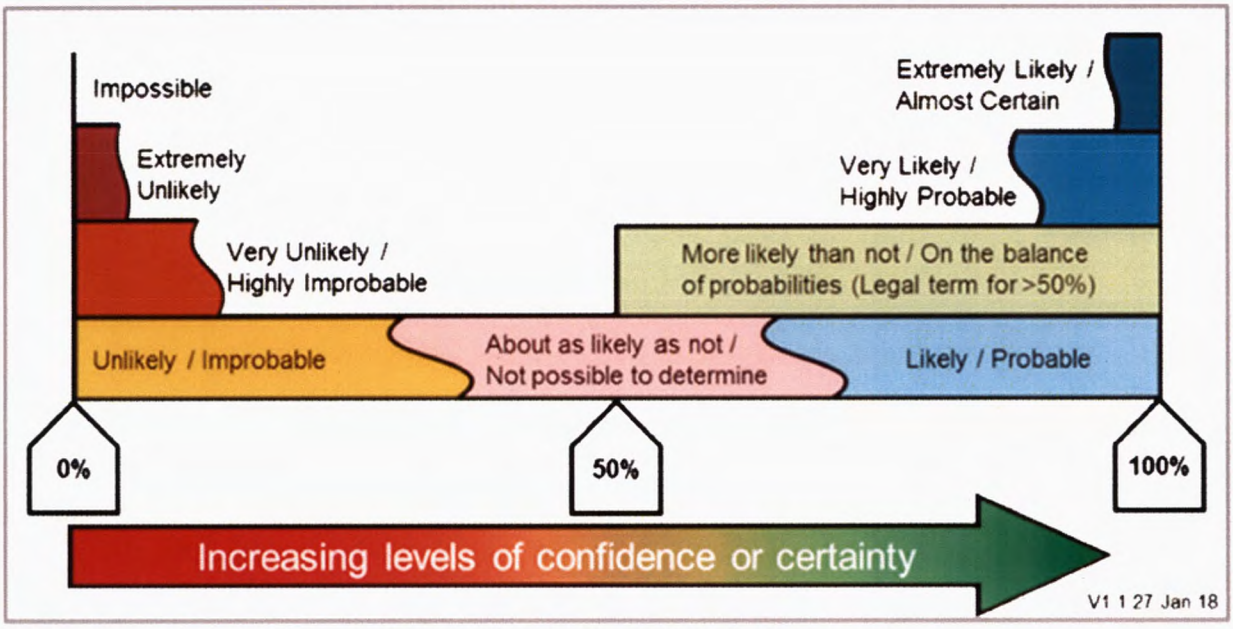


Figure 1.4. 1. Probabilistic language

Available evidence

1.4.7. The Panel had access to the following evidence:

a. Defence Accident Investigation Branch (DAIB) triage report.

b. Witness statements and emails.

c. Ministry of Defence (MOD) documents and emails.

d. 1st UK Division (1 (UK) Div) documents.

e. 11 Infantry Brigade (11 Bde) documents.

f. 1st Battalion Coldstream Guards (1 COLDM GDS) documents.

g. Allied Joint Publication (AJP) 410 – AJP for Medical Support.

h. Defence Standard 00-003 Design Guidance for the Transport of Equipment.

i. Defence Instructions and Notices 2018 DIN 01-001 – Employment of General Duties Medical Officers (GDMO).

j. Joint Service Publication (JSP) 950 – Medical Policy Part 1.

[1] https://www.ipcc.ch/pdf/supporting-material/uncertainty-guidance-note.pdf.
[2] https://www.atsb.gov.au/media/27767/ar2007053.pdf.

k. JSP 892 Parts 1 & 2 – Risk Management in Defence.

l. JSP 375 – Management of Health and Safety in Defence.

m. Army Command Standing Order (ACSO) 3215 – Planning of Health Service Support.

n. ACSO 3216 – Army's Safety and Environmental Management System.

o. ACSO 3235 – Authorisation of Comparable Activities which are not categorised as Adventurous Training or Sport.

p. ACSO 3365 – Training and Professional Experience Requirements for the Army Medical Services.

q. Post Mortem Report. Provided by Oxford Coroner's Office.

r. Probability of Survivability Report produced by a Consultant in Pre-Hospital Emergency Care.

Services

1.4.8. The Panel was assisted by the following personnel and agencies:

a. The Defence Accident Investigation Branch (DAIB).

b. The Defence Medical Services (DMS) Training.

c. The Head DMS Regulator (DMSR)

d. The Permanent Joint Headquarters (PJHQ).

e. The Joint Air Delivery Test and Evaluation Unit (JADTEU), RAF Brize Norton.

f. The Staff Officer 2 (SO2) Aero Med in Tactical Medical Wing, RAF Brize Norton.

g. The SO2 Dismounted Close Combat (DCC) Through-Life Support (TLS), Equipment Army HQ.

h. The Defence Attaché (DA), Harare.

i. The Oxford Coroner's Office.

j. The DMS consultant advisor in pre-hospital emergency medicine.

k. The Foreign and Commonwealth Office (FCO).

l. The Ministry of Defence (MOD).

m. The Department for Environment, Food and Rural Affairs (Defra).

Section 1 – Genesis and planning for Op CORDED

Genesis of Op CORDED

1.4.9. **MOD Concept and planning**. The concept for UK support to Countering the Illegal Wildlife Trade (CIWT) was originally conceived by a former British Army Officer whilst on a sabbatical in Africa in 2016. With the support and backing of HRH Prince Harry he presented an idea for supporting African Parks, using the UK military, to the then Secretaries of State for the FCO, MOD and Department for International Development (Dfid). It was deemed appropriate that the UK could support such a cause both politically and militarily as it reinforced UK policy as a global force for good. A cross-governmental approach was taken involving MOD, Defra and Dfid. Defra provided £450,000 over 3 years to fund the project. Several ministerial submissions (MinSub), letters and briefings were delivered by the MOD providing options for and confirming what form the military support would take. The first CIWT task, Project BEEKEEPER (MAL 1), deployed to LNP in Malawi in August 2017. Witness 29 Witness 30 Exhibit 30 Exhibit 31 Exhibit 32 Exhibit 33 Exhibit 34 Exhibit 35 Exhibit 36 Exhibit 37

1.4.10. The MinSub dated 12 April 2019 articulates the Risk to Life (RtL) from dangerous large animals and poachers and provided ministers with assurance that the RtL had been mitigated to as low as possible through a robust medical plan. Exhibit 18 Exhibit 60

1.4.11. The Panel concluded that during the concept and high-level planning phase the risks had been identified, assessed, mitigated and briefed at the appropriate levels. The genesis and conceptual phase of Op CORDED was conducted using well recognised cross-governmental and MOD processes which are routine and thorough. The Panel therefore concluded that the rigour behind the UK being deployed in this region to conduct this kind of Defence Engagement (DE) task was appropriate. The Panel finds that planning at the governmental level was **not a factor**.

Command and Control

1.4.12. **Command and Control (C2)**. The C2 for MAL 3 followed a very clear hierarchical structure. Figure 1.4.2 shows the C2 and DH structure for MAL 3. Exhibit 38 Exhibit 45

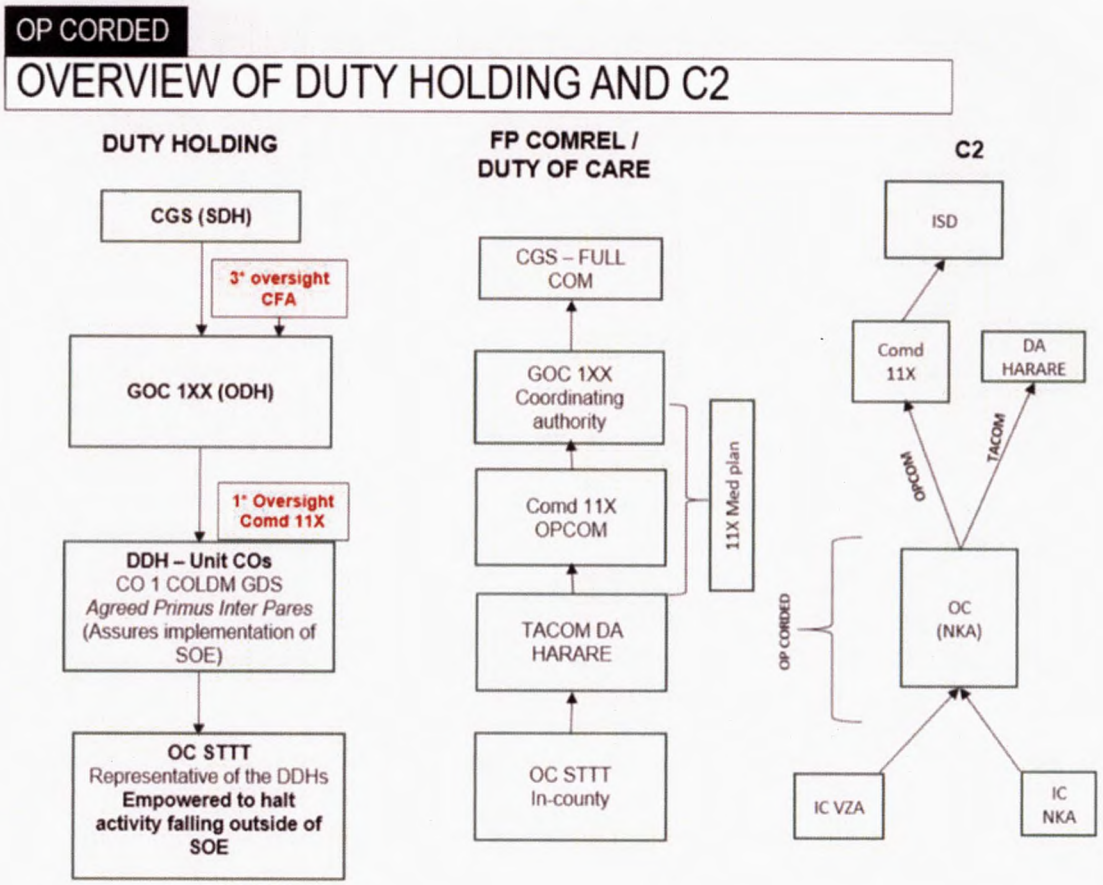


Figure 1.4. 2. Duty Holding and Command & Control on Op CORDED MAL 3 (Exhibit 45)

Key to abbreviations for figure 1.4.2.	
Abbreviation	**Meaning**
CGS	Chief of the General Staff (Head of Army)
GOC 1XX	General Officer Commanding 1st United Kingdom Division
ODH	Operational Duty Holder
Comd 11X	Commander 11 Brigade
DDH	Delivery Duty Holder
CO	Commanding Officer
OC STTT	Officer Commanding Short Term Training Team
FULL COM	Full Command
OPCOM	Operational Command
TACOM	Tactical Command
DA	Defence Attache
NKA	Nyika National Park
VZA	Vwaza National Park

1.4.13. Once ministers had agreed that the UK military could assist the African Parks, the MOD delegated responsibility for the generation and delivery of the operation to the Army. The head of the Army, the Chief of the General Staff (CGS) is ultimately responsible for all Army delivered operations and reports directly to the military head of the Armed Forces, the Chief of Defence Staff (CDS). Below CGS, there were a further three subordinate layers of command

Exhibit 43
Exhibit 62

providing the C2. These were the GOC 1 (UK) Div, CO 1 COLDM GDS and OC STTT. Providing command oversight to these command elements were Commander Field Army (CFA) and Commander 11 Bde.

1.4.14. In addition, providing the coordinating authority[3] in Malawi was the Defence Attaché (DA) for Zimbabwe, Malawi, Botswana and Zambia, based in Harare, Zimbabwe. Administrative support was provided by British Peace Support Team Africa (BPST (A)) in Kenya. Exhibit 45

1.4.15. The higher level C2 structure adopted for MAL 3 was robust and clear. It provided a support and oversight system to ensure that both the planning, execution and more importantly assessment of risks and management had been thoroughly scrutinised. It ensured that clear reporting processes were in place including weekly assessment reports from OC STTT to CO 1 COLDM GDS and Commander 11 Bde and a weekly report to MOD, Defra and GOC 1 (UK) Div from Commander 11 Bde. Exhibit 62

1.4.16. Under 11 Bde the command structure at the unit level had been simplified, with all personnel in the STTT put under command of one DDH. These changes had been implemented due to lessons identified from previous deployments where individual augmentees had been used which generated several DDH strands rather than just one. Figure 1.4.2 shows a simplified C2 wire diagram. The Panel finds that the C2 structure for Op CORDED was **not a factor**.

1.4.17. **Command and Control relationship between MOD and Defra**. Evidence gathered by the Panel clearly shows a good working relationship between the MOD and Defra. They met regularly to discuss policy matters, Defra funding requirements and operational risk. At no stage did Defra request that the MOD conduct any tasks that were not in-line with policy and the specified objectives. Witness 29 Witness 30 Exhibit 39

1.4.18. The cross-Whitehall relationship between MOD and Defra is essential to providing effective governance of military tasks in support of other government departments. This is a well exercised arrangement and therefore the Panel finds that the relationship between MOD and Defra was **not a factor**.

1.4.19. **Tactical command and control in theatre**. The STTT on MAL 3 was commanded by an experienced Late Entry[4] Army Major and was hand-picked for the task. The rank of Major is normally in command of a Company sized group of 100 or more personnel. The size of the STTT was 29, typically an infantry platoon size. This size of deployment would normally be commanded by a Lieutenant (Lt) or a Captain (Capt). Assisting the OC was a Capt and a Lt, acting as multiple[5] commanders, Sergeants (Sgts) as Platoon Sgts and Lance Witness 5 Exhibit 38

[3] In this case being the in-theatre coordinating authority meant the DA had responsibility for coordinating in-theatre force protection matters and responsibility for coordination of medical, legal and diplomatic support if required in country.

[4] A Late Entry Officer is an officer who has commissioned as an officer from being a senior non-commissioned officer or Warrant Officer.

[5] A multiple is usually a 12-person strong sub-unit.

Sergeants (LSgts) as team[6] commanders. A Warrant Officer Class 2 (WO2) and Colour Sergeant (CSgt) were also appointed to provide personnel and logistics support. This gave the STTT a C2 structure more akin to that of a Company group.

1.4.20. Lessons from MAL 2 about the C2 structure had been effectively incorporated into MAL 3. The tactical C2 structure provided depth in command and the ability to delegate, enabling the OC to focus on the wider operational aspects of the deployment, such as liaison with African Parks and assessing a possible expansion of the Area of Operations (AO) to the northern parks. The daily running of the teams was left to the Capt and the Lt, with the Capt effectively deputising in the OC's absence. This structure proved very effective on the day of the incident and enabled rapid decision making by the OC who was conducting reconnaissance (recce) in the northern parks of Malawi. The Panel finds that the absence of OC STTT was **not a factor** due to the robust C2 and communications plan.

1.4.21. The Panel concluded that due to the austere and remote conditions experienced on MAL 3 the decision to have a C2 structure more akin to that of a Company group was effective. It provided the appropriate level of skill, knowledge and experience to deal with the demands of a deployment like this. Therefore, the Panel finds that the tactical C2 of Op CORDED was **not a factor.**

1.4.22. **Command relationship with African Park Rangers**. There was no formal C2 relationship between OC MAL 3 and the APRs. The deployment of UK personnel with the APRs was coordinated on a weekly basis. The patrol locations were agreed using a balance between where the African Parks Ops Officer needed his APRs to go and the STTT's Safe Operating Environment (SOE), i.e. where the UK could patrol whilst remaining within the planned SOE. The patrols were intelligence led and focused where the poaching activity was greatest. Witness 5

1.4.23. The limitations placed on the UK personnel due to the SOE meant that there was a reputational risk of the UK not being able to effectively partner with the APRs. Despite this, on MAL 3, Commander 11 Bde enforced the SOE rigidly and, in some circumstances, offered training within the Ranger Camp instead of partnering patrols out with the SOE. The Panel saw no evidence that the SOE had been compromised to satisfy the relationship with the APRs. The Panel finds therefore that the command relationship with the APRs was **not a factor**.

Duty Holding

1.4.24. An operation, such as Op CORDED, conducted by a single Service is usually planned and executed under the Duty of Care (DoC) construct. DoC is the moral and legal obligation to ensure the safety and well-being of all personnel under their command and others affected by the activities undertaken Exhibit 12 Exhibit 41

[6] A team is usually a 4-person strong sub-unit.

by their unit's personnel. DoC is principally exercised by ensuring that all activity within the unit is conducted in accordance with an appropriate Safe System of Work/Training (SSOW/SSOT). The Army has applied Duty Holding (DH) risk management construct to 8 key RtL activities. Op CORDED MAL 3 had been planned using the Duty Holding construct although the STTT was not one of the 8 key RtL activities highlighted in ACSO 3216. The Panel concluded that the use of the DH construct in this instance provided a more thorough examination of the risks than the DoC SSOW methodology and enabled a greater level of scrutiny and risk mitigation and management. The Panel finds that the use of the DH construct rather than DoC SSOW methodology during the planning of Op CORDED was **not a factor**.

1.4.25. **Duty Holding (DH) and risk management**. The DH process was applied during the planning and execution of Op CORDED in accordance with Army Command Standing Orders (ACSO) 3215 and 3216 and Defence Safety Authority (DSA) 1.2 Chapter 3 Duty Holding. The Panel had access to the hierarchy of documents pertaining to DH and risk management. Exhibit 12 Exhibit 40 Exhibit 41

1.4.26. ACSOs 3215 and 3216 are the overarching policy documents for health and safety and medical planning by which all Army operations are planned. Figure 1.4.2. shows how the DH structure dovetails into the C2 hierarchy and the command relationships for reporting purposes.

1.4.27. The duty holding structure provides the military with a clear risk management and risk ownership pathway. It allows risk ownership to be transferred up the duty holding chain to the appropriate level at which resources can be applied to reduce the risk to As Low As Reasonably Practicable (ALARP). At each level the risk is either tolerated or treated, terminated or transferred to ensure that the residual risk is tolerable. Exhibits 12 Exhibit 41

1.4.28. In the case of Op CORDED the DH process identified RtL from several threats including; road traffic incidents, poachers and large dangerous animals. This process was entirely appropriate and applied correctly. As this was a single Service (Army) operation the SDH was the CGS. He appointed ODH responsibility to the 2* Divisional Commander, the GOC 1 (UK) Div. who then appointed DDH responsibility to the CO 1 COLDM GDS. The DH construct for MAL 3 was much simpler and clearer than on MAL 1 and MAL 2 and enabled more effective risk management to be exercised. The Panel observes that, under DSA 01.2 Chapter 3 the appointment of the DDH should be done by the SDH not the ODH. In contrast ACSO 3216 Chapter 6 states that the DDH can be appointed by the ODH. Exhibit 38

1.4.29. The DH construct will be examined further to clarify how Op CORDED was supported by the chain of command and therefore at what levels the RtL were held and scrutinised. At the MOD level the Assistant Chief of Defence Staff Military Strategy and Defence Engagement (ACDS MSDE) is responsible for ensuring that a DE operation or project meets its objectives and delivers the operational benefits. The MOD exercises its interests in this type of DE activity through the ACDS MSDE. This is normal practice and ensures high level oversight and assurance of all DE activities. Witness 14 Witness 17 Witness 27 Witness 28 Exhibit 42 Exhibit 43 Exhibit 44

1.4.30. For Op CORDED the Secretary of State (SofS) for Defence and Minister for the Armed Forces were briefed in a MinSub about the RtL from dangerous animals. The MinSub also included assurances that the RtL had been mitigated. The MinSub gave the ministers the opportunity, based on the information they had been given, to amend or stop the deployment if required. Exhibit 32 Exhibit 36 Witness 29 Witness 30

1.4.31. The Commander of the Field Army (CFA) provided the 3-star oversight to the DH process. CFA and GOC 1 (UK) Div were provided with a Concept of Operations (CONOPS) and conditions check brief on 4 March 2019. The purpose of this brief was to highlight the status of key elements of the deployment that needed to be in place, including medical aspects and risk management, before the deployment could proceed. Exhibit 45

1.4.32. GOC 1 (UK) Div was formally appointed as the ODH for Op CORDED by the SDH. He set out his commander's critical information requirements in order to make informed decisions about the validity of the deployment. His main questions regarding the medical plan and the RtL posed by operating in such austere conditions were clearly articulated. The DDH and Commander 11 Bde provided assurances that the RtL had been mitigated appropriately. The primary force protection staff officer in the 1 (UK) Div HQ was the SO1 Force Protection. Based on SO1 FP's analysis of the risk assessment, the RtL was assessed by GOC 1 (UK) Div as being ALARP and tolerable. Witness 14 Witness 17 Witness 27 Witness 28. Exhibit 26 Exhibit 62

1.4.33. Commander 11 Bde had operational command of the STTT and provided oversight to the DDH. He provided the GOC 1 (UK) Div with regular updates on the progress of the deployment and in particular the status of the key assets required to support the medical plan and mitigate the RtL from the variety of threats. As part of his responsibilities as oversight to the DDH, Commander 11 Bde conducted a recce to LNP and issued a report dated 16 January 2019. This was then followed up by the assurance visit led by Commander 11 Bde during RSOI. Exhibit 26 Exhibit 28

1.4.34. CO 1 COLDM GDS was the DDH and managed the risks on behalf of the ODH. He conducted his own assurance visit and monitored the operation through the weekly assessment reports (ASSESSREPs) and regular communication with the OC MAL 3. Witness 5 Witness 14 Exhibit 26

1.4.35. OC STTT was the tactical commander in Malawi providing Commander 11 Bde and CO 1 COLDM GDS with weekly ASSESSREPS. These reports covered all functional areas whilst deployed including personnel, information and intelligence, operations updates/progress, logistics, medical and sustainment, future planning and activities, communications, training and financial issues. Exhibit 23 Exhibit 46 Exhibit 47 Exhibit 48 Exhibit 49 Exhibit 50 Exhibit 51 Exhibit 52 Exhibit 53 Exhibit 54 Exhibit 55 Exhibit 56 Exhibit 57

1.4.36. The Panel concluded that the DH process had been employed throughout the planning and execution of Op CORDED MAL 3. The Panel finds that the DH process was **not a factor**.

Orders process on Op CORDED

1.4.37. With a clearly defined DH process and command structure in place the Panel could identify a clear hierarchy of orders, direction and guidance down through the chain of command. The following orders and direction were analysed by the Panel:

Witness 14
Exhibit 30
Exhibit 31
Exhibit 32
Exhibit 33
Exhibit 34
Exhibit 35
Exhibit 36
Exhibit 37
Exhibit 43
Exhibit 58
Exhibit 59
Exhibit 60
Exhibit 61
Exhibit 62
Exhibit 63
Exhibit 64
Exhibit 65

a. Ministerial Submissions. Approval for UK participation at ministerial level.

b. Deputy Chief of the Defence Staff (Military Strategy and Operations) (DCDS (MSO)) Directive 34-19 Op CORDED.

c. MOD and cross-government direction including Defra strategy, Defence objectives and military strategic objectives – the reason for UK military involvement.

d. MOD direction to the Army to activate Op CORDED – Dated 25 January 2019.

e. Army Force Generation Order for CIWT STTT in Malawi – Dated 12 February 2019.

f. 1 (UK) Div Fragmentary Order (FRAGO) 010-19 STTT – Orders to subordinate commanders to generate and deliver MAL 3 with 11 Bde being the supported commander. It also clearly directed the C2 and DH status.

g. 11 Bde Op CORDED FRAGO – Counter-poaching capacity building in Malawi (3). This document was the official orders to CO 1 COLDM GDS and was supported by the MAL Warning Order and Activation Orders issued by MOD and 1 (UK) Div. It was also supported by the 11 Bde recce reports and 1 (UK) Div Force Protection Order.

h. In December 2018 the CO 1 COLDM GDS was given a verbal warning order, by telephone from Commander 11 Bde, for the deployment of MAL 3. This was subsequently reinforced with the FRAGO noted above.

1.4.38. The Panel finds that the orders process during Op CORDED MAL 3 was coherent and thorough and was **not a factor**.

Medical Planning

1.4.39. **Medical Plan (Med Plan)**. The Med Plan for MAL 3 was produced by 11 Bde and dated 28 January 2019. It supported the following: Exhibit 18 Witness 21

a. The overall health threat to MAL 3 personnel is HIGH but the extended medical timelines raise this risk to EXTREME. Exhibit 14 Exhibit 15 Exhibit 18

b. Medical capabilities are largely inadequate by UK standards (this was written pre-hospital recce). Mwaiwathu Hospital was below UK standards but could have provided damage control surgery.

c. Pre-Deployment force health protection preparation – antimalarials, immunisations, medical training, risk of using host nation blood products, documentation, use of PPE etc.

d. Deployed force health protection – Acclimatisation, water, bite prevention, climatic risk assessment, food, hand washing, skin infections, blood borne viruses and venomous animals etc.

e. Primary health care, pre-hospital emergency care and hospital care.

f. Medical Evacuation (MEDEVAC)[7] and Casualty Evacuation (CASEVAC)[8] rehearsals and medical logistics for medical equipment resupply.

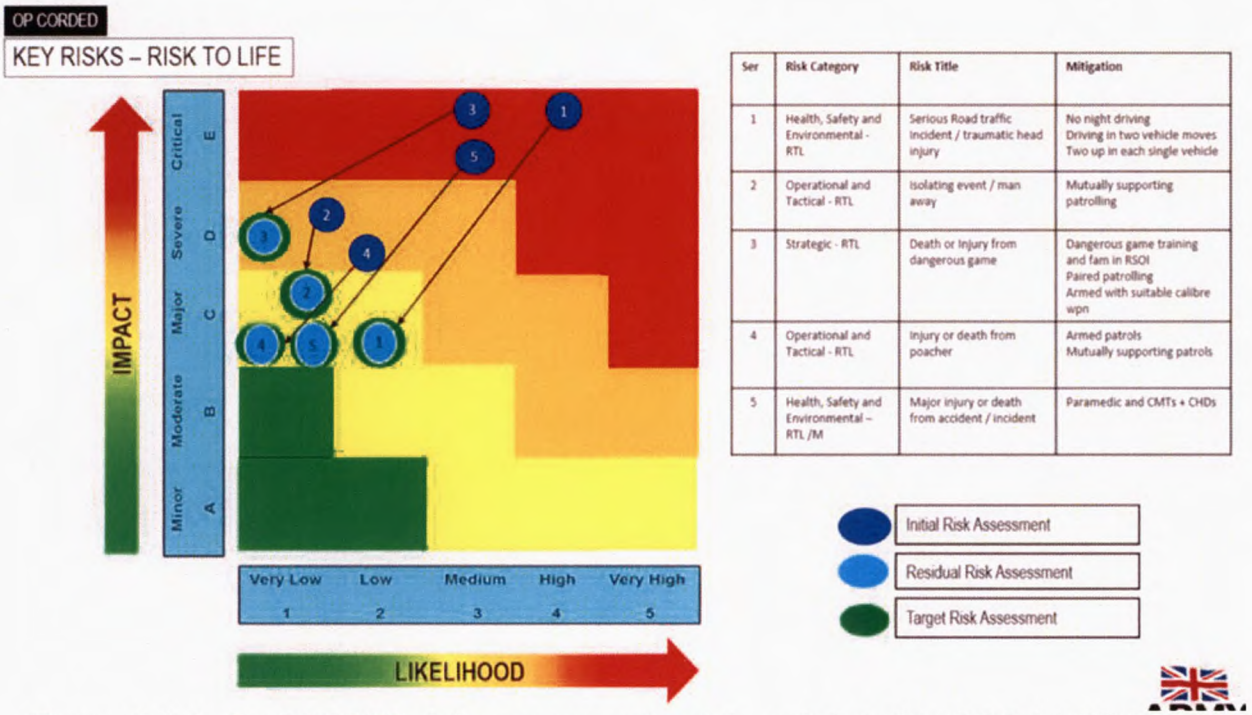
1.4.40. **Annex A to 11 Bde Med Plan - medical risk assessment**. The medical risk assessment at Annex A to the Med Plan highlighted the main RtL as road traffic incident (RTI), disease and dangerous large animals. Annex A stated that after mitigation, the residual risk for dangerous animals was a 'green' (moderate) with a score of '4', although the Panel found this score to be incorrect. Exhibit 18 Witness 21

1.4.41. The residual risk factor for dangerous animals shown in the Med Plan was identified by 11 Bde staff as a 'staffing error' and this was corrected for the GOC 1 (UK) Div conditions check brief. The Med Plan however, was not changed to reflect this. Ultimately, the STTT was aware that the risk from dangerous large animals was 'amber' (severe). Figure 1.4.3 shows the risk assessment matrix delivered as part of the conditions check brief to GOC 1 (UK) Div on 14 February 2019. It shows that by mitigating the risk through training and arming the patrols the risk was reduced from a 'red' (critical) to an 'amber' (severe). Subsequently, following the Urgent Safety Advice delivered by the Director General DSA after the incident, the risk posed by dangerous large animals was reassessed, with the likelihood of an attack rated as yellow Witness 17 Exhibit 45

[7] JSP 950 states that MEDEVAC is the movement of operational patients from point of injury/illness up to DHC, under medical supervision in a designated transport platform equipped for role. In this case this was the use of the Land Rover 130 and CMT.

[8] JSP 950 states that the movement of casualties in a non-designated vehicle without a medical escort is termed casualty evacuation (CASEVAC). In this case this was the movement of Gdsm Talbot by stretcher from the point of wounding to the RV with the CMT.

(moderate) and the impact of a serious attack rated as red (critical). After mitigation was put in place the overall risk was reduced to yellow (moderate). This means that the residual risk can be held by the DDH.



Ser	Risk Category	Risk Title	Mitigation
1	Health, Safety and Environmental - RTL	Serious Road traffic Incident / traumatic head injury	No night driving Driving in two vehicle moves Two up in each single vehicle
2	Operational and Tactical - RTL	Isolating event / man away	Mutually supporting patrolling
3	Strategic - RTL	Death or Injury from dangerous game	Dangerous game training and fam in RSOI Paired patrolling Armed with suitable calibre wpn
4	Operational and Tactical - RTL	Injury or death from poacher	Armed patrols Mutually supporting patrols
5	Health, Safety and Environmental – RTL /M	Major injury or death from accident / incident	Paramedic and CMTs + CHDs

Figure 1.4. 3. Op CORDED risk assessment matrix as briefed to GOC 1 (UK) Div on 14 Feb 2019 (Exhibit 45)

1.4.42. When assessing risk, it is important to examine the frequency of previous incidents to ascertain a credible assessment of the likelihood of an attack occurring. During MAL 2, only one potentially threatening encounter had taken place with a buffalo, this did not result in any serious injury. Up to the point of the incident on MAL 3 there was no evidence that any significant encounters with large animals had taken place[9]. Therefore, previous encounters did not significantly influence the risk analysis during the planning of MAL 3. Witness 20

1.4.43. Whilst most encounters with dangerous large animals are not fatal, planning for attacks by large dangerous animals should be conducted around the worst credible outcome; the tragic incident with Gdsm Talbot was exactly that. Based on the evidence, the Panel concluded that the residual risk assessment following mitigation measures was an underestimation. The Panel finds that the underestimation of the likelihood and impact of an attack by dangerous large animals was an **aggravating factor**.

1.4.44. **Recommendation**. Commander 11 Bde should direct that the risk assessment for an attack by large dangerous animals is updated before the next

[9] Although according to https://www.theguardian.com/world/2015/sep/29/animals-kill-seven-people-in-seven-weeks-says-malawi-wildlife-park there had been previous fatal attacks by elephants in LNP.

Counter Illegal Wildlife Trade Short Term Training Team in order to ensure that the residual risk is held at the appropriate level[10].

1.4.45. **Annex B to the Med Plan - Host Nation medical facilities**. As part of the clinical assurance for the deployment, the Regimental Medical Officer (RMO) was tasked to conduct recces of local hospitals that would likely be used in a medical emergency by the personnel on MAL 3. This was to ascertain whether they would meet the standards of care required by UK military. During the initial planning of Op CORDED, two hospitals were recced. The first was the Daeyang Luke Charitable Hospital (DLCH) in Lilongwe, recced by the RMO. DLCH hospital lies 254Km north west of LNP main gate, a journey time of approximately 4hrs by road. This hospital was intended for use during the partnering phase of the operation when the STTT was scheduled to move to the northern parks of Vwaza and Nyika[11]. These parks are 315Km and 375Km north of DLCH and would require fixed wing Air MEDEVAC in order to achieve the planned medical timeline. Annex B was to have contained the details of host nation medical facilities, however, it was annotated as "TFO" (To Follow On). This information should have been available for the Competent Medical Authority (CMA) and the command and medical personnel deploying on MAL 3 as defined by ACSO 3215 (Annex H). The Panel requested these documents from 11 Bde Med and acquired a copy of the DLCH recce from the RMO, which demonstrated that this particular hospital had the requisite facilities to provide DCS to UK personnel.

Witness 10
Witness 23
Witness 25
Exhibit 12
Exhibit 16
Exhibit 18
Exhibit 66
Exhibit 67

1.4.46. The hospital that was planned to be used during the initial phase of MAL 3, Mwaiwathu Hospital in Blantyre, was recced by the MAL 3 Paramedic. The Panel found no evidence of a formal written report submitted for this hospital. However, the Paramedic's assessment was sanctioned by the RMO and the hospital assessed as a suitable medical facility to conduct DCS if required. The Panel's medical expert conducted his own assessment of the hospital and found it to be adequate for DCS and concurred with the Paramedic's assessment. Based on this information and the guidelines in JSP 950 and Annex A to ACSO 3215[12] the Panel concluded that the Mwaiwathu Hospital in Blantyre offered the requisite level of medical care, that could have potentially saved Gdsm Talbot's life had he got there within the medical timeline. The Panel finds that the standard of the host nation hospital to which Gdsm Talbot was intended to go was capable of providing DCS and therefore **not a factor**.

Exhibit 15
Exhibit 17
Witness 10
Witness 23
Witness 25

1.4.47. The Panel was provided with evidence that the necessary recces had been done and that SO2 Med in 11 Bde was satisfied that the selected Host Nation hospital's facilities could provide DCS, but this was not captured in Annex B. The Panel concluded that the omission of the recce reports was an oversight during planning but did not have any bearing on the outcome of the incident.

Exhibit 16
Witness 10
Witness 21

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[10] Following the incident, 11 Bde actioned this recommendation and reviewed the risk analysis and concluded that the impact of such an attack was critical.

[11] Due to several issues including the incident this did not happen during MAL 3.

[12] ACSO 3215, Annex A states that hospital facilities must be assured by International Save Our Souls (ISOS), Bde Senior Medical Officer, second tour Regimental Medical Officer (RMO) or DCA in acute specialty. In this case the RMO provided the requisite assurances for Mwaiwathu Hospital based on the recce conducted by the Paramedic.

However, the Panel finds that the absence of the requisite reports in the med plan was an **other factor**.

1.4.48. **Recommendation**. GOC 1 (UK) Div should direct that copies of the host nation hospital recce reports are included in the appropriate annex of the medical plan in order to provide documented assurance of their suitability for use by UK military personnel.

1.4.49. **Deployment of the General Duties Medical Officer (GDMO)**. During the original planning process (and included in the Med Plan), a GDMO was due to deploy in support of the STTT. This was because of the remote nature of the deployment. Exhibit 18

1.4.50. The GDMO did not deploy. The rationale was that the types of injuries or ailments, assessed as likely on this tour, could adequately be covered by the deployed Paramedic and two Combat Medical Technicians (CMTs). In the Panel's experience, for a deployed group of this size the normal acceptable medical cover would be one CMT. Therefore, the in-theatre medical cover was assessed by the Panel as more than adequate and in line with policy. Witness 17 Witness 10

1.4.51. The GDMO remained in the UK providing 'reach-back' capability 24/7 should that have been required. This level of GDMO supervision is in line with the 2018DIN01-001-Employment of GDMOs and ACSO 3365 – Training and Professional Experience Requirements for Army Medical Services. The GDMO and his supervisor, the RMO were satisfied with the 'reach-back' set-up. The communications issues will be examined later in the report. Therefore, the Panel finds that the absence of a GDMO in-theatre was **not a factor**. Exhibit 66 Exhibit 67 Exhibit 18

1.4.52. **MEDEVAC Resourcing**. The Med Plan outlined the resources required for the MEDEVAC plan. These included the team medic bergans and stretcher, CMTs with medical bergans and a Land Rover 130 in lieu of a bespoke ambulance. The fixed wing International Save Our Souls (ISOS) air ambulance was also an option. The AP Bell Ranger 206 helicopter was briefed as an alternative CASEVAC/MEDEVAC option if available but was not the primary means of MEDEVAC.

1.4.53. The deployment was small and is what, in Defence terms, is categorised as a discretionary task, forming part of DE activities to increase UK influence and promote the UK military as a force for good around the world. However, the critical assets needed to reduce the risks further, such as helicopters or deployable medical facilities, are in high demand and would require significant resource to deploy and sustain.

1.4.54. The OC STTT, the DDH and the ODH were aware that at the time of the incident the African Parks helicopter was not available and that the nearest medical facility capable of DCS was Mwaiwathu Hospital in Blantyre. Noting DMSR's question[13], the Panel concluded that MEDEVAC plan was not Exhibit 45

[13] Was it realistic for the type of injuries sustained and treatment required to have been foreseen and did the plan provide an effective way of managing these?

adequately resourced. The Panel finds that the absence of a helicopter or a closer, suitable medical facility was an **aggravating factor**.

1.4.55. **1 (UK) Div Command Directive (Annex D)**. Annex D specifically dealt with safety and force protection issues for operations. It provided the direction for 11 Bde to follow. In conjunction with ACSO 3216, it provided the requisite guidance, direction and advice on policy, legal requirements, medical planning, risk assessment, SOE, duty of care, DH processes and health and safety.

1.4.56. Throughout the planning and execution of MAL 3 the risk management procedures were employed in accordance with the DH construct. The ODH (GOC 1 (UK) Div) and CFA were provided with a CONOPS and conditions check brief on 4 March 2019 by the Commander of 11 Bde[14]. In order to deliver accurate information, the Commander 11 Bde conducted an assurance visit to MAL 3 between 24-29 March 2019[15], during RSOI and prior to the operation going 'live'. His report was released on 1 April 2019. The assurance visit was intended to confirm that the conditions in the SOE had been met. The medical evacuation timeline was briefed and approved through this process and will be examined further in Section 4.

Witness 17
Witness 27
Exhibit 26
Exhibit 68
Exhibit 69
Exhibit 70

1.4.57. The 11 Bde assurance report outlined issues with the SOE including the African Parks helicopter being off line from the 9 April 2019 to the 8 May 2019. Importantly it stressed the importance of carrying out full MEDEVAC rehearsals. Rehearsals can indicate, but not assure MEDEVAC timelines as these will vary depending on conditions and availability at the time. The command decision was made not to conduct a rehearsal with the contingency air ambulance as the benefit of doing so would not have added significant value. However, the Panel concluded that a rehearsal could have proved the concept and provided OC STTT with added confidence to better assess the suitability or not of the air ambulance as a MEDEVAC option. The Panel finds that the lack of a rehearsal with the air ambulance was an **other factor**.

Exhibit 62,
Exhibit 69
Exhibit 70
Witness 5
Witness 17

1.4.58. **Recommendation**. CFA should ensure that Short Term Training Teams in austere and remote environments are sufficiently resourced to allow a full rehearsal of all aspects of the med plan before operations begin in order to validate the casualty evacuation timeline[16].

1.4.59. **Weekly assessment reports (ASSESSREPS)**. In order to provide continual feedback and assurance to the chain of command, OC MAL 3 submitted weekly ASSESSREPs to Commander 11 Bde and CO 1 COLDM GDS. These reports provided regular feedback on force readiness, mission progress and any additional risks identified.

Exhibit 23
Exhibit 46
Exhibit 47
Exhibit 48
Exhibit 49
Exhibit 50

[14] The conditions check brief is standard good practice. It enables subordinate commanders to brief their superiors that all the command direction and criteria has been met. If it has not been met it is an opportunity to highlight where the risks or gaps lie and what can be done to mitigate them. Based on this information the ODH can then give their approval or not for the operation to go ahead.

[15] Command led assurance visits are standard good practice for all UK military operations.

[16] This recommendation has now been actioned by CFA and 1 (UK) Div.

Exhibit 51
Exhibit 52
Exhibit 53
Exhibit 54
Exhibit 55
Exhibit 56
Exhibit 57

1.4.60. The ASSESSREP is an established and regularly used process adopted by all deployed commanders to give routine updates through the chain of command. Key elements of these reports are then passed up the chain of command to the appropriate level, up to and including ministerial level if required. This reporting process was used correctly throughout this deployment, allowing the chain of command to make informed and timely decisions regarding the mission as and when required. Therefore, the Panel finds that the ASSESSREP process was **not a factor**.

Section 2 – Pre-incident activity

Lessons Identified from MAL 2

1.4.61. **MAL 2 to MAL 3 continuity**. Due to a gap of 4 months between deployments MAL 3 did not benefit from a direct handover from MAL 2. To mitigate this the OC of MAL 2 was seconded, at the request of Commander 11 Bde, to the 11 Bde HQ as the SO3 Counter-Poaching. The lessons identified from MAL 2 were captured in a Post-Deployment Record (PDR) and the majority incorporated into the planning of MAL 3.

Exhibit 3
Witness 20

1.4.62. The Bde Commander employed a counter-poaching officer in the 11 Bde HQ to mitigate the absence of a direct handover. The establishment of this position provided valuable insight and enabled thorough tactical planning to be conducted prior to MAL 3. It also provided support to the deployed STTT prior to and during their deployment. The MAL 2 PDR identified several key lessons some of which were incorporated into the planning and execution of MAL 3 and these will be examined in the following paragraphs.

Witness 17
Witness 18
Witness 20

1.4.63. It is the Panel's view that in the absence of a direct, in-theatre handover, seconding OC MAL 2 to the Bde HQ was a well-considered decision and as a result improvements were made in the planning and execution of MAL 3. Therefore, the Panel finds that the gap between deployments and the absence of a direct handover were **not factors**.

1.4.64. **MAL 3 Duty Holding (DH) and reporting chain**. MAL 2 was made up of individuals from different parent units. The COs of each unit acted as a DDH to their respective personnel and had varying risk appetites resulting in a complex DH chain. This meant that the SOE was not unified as there was no standardised risk appetite.

Exhibit 3

1.4.65. As a result of this issue being raised, personnel for MAL 3 were predominantly from the same Bde, with the majority being from 1 COLDM GDS. All personnel were united under a single command and DH chain. With this new

structure Project BEEKEEPER was operationalised and re-named Op CORDED.

1.4.66. The Panel concluded that incorporating a simplified DH chain into MAL 3 was an improvement and therefore the Panel finds that the force generation of manpower for MAL 3 was **not a factor**.

1.4.67. **MAL 3 command structure**. For previous iterations of Project BEEKEEPER in Malawi, 102 Logistic Bde was the regionally aligned Bde. This meant that individual augmentees from different regiments and specialisations came together to deliver the operation. Witness 20

1.4.68. As a result of lessons from MAL 2 the personnel requirements were adjusted. A Training Needs Analysis (TNA) was conducted by OC STTT and job descriptions were defined. As a result, a more robust tactical command structure was put in place within each of the teams. An officer and a senior non-commissioned officer were paired to provide the C2 of a team with a Maj in overall command of both teams. A Royal Military Police (RMP) Corporal was added to the 'order of battle' (ORBAT) for MAL 3 to assist with issues surrounding detention and arrest of poachers. Witness 17 Witness 20 Exhibit 3

1.4.69. This command structure from a formed unit, was observed by the Panel to have provided effective C2 of the STTT. The Panel finds that the selection of the command structure for the STTT was **not a factor**.

1.4.70. **Equipment**. The provision of vehicles was a point raised as part of the MAL 2 PDR. The PDR recommended that vehicle movement in LNP should be in groups of two vehicles, with a third vehicle in support at the Ranger Camp for routine movement and resilience. This would have required a total of six vehicles. Exhibit 3

1.4.71. MAL 3 had a total of seven vehicles at the time of the incident, five Land Rover 110 and two Land Rover 130s (support vehicles). The allocation of vehicles was generally one vehicle supporting one team, each vehicle contained a Platoon Sergeant (Plt Sgt) and a CMT. The Plt Sgt and CMT would locate themselves centrally to support all patrols from the team of twelve. The nature of the patrol matrix meant that at any one time there could be two teams deployed, meaning that two Land Rover 130s could be deployed in support. The additional vehicles were held at the Ranger Camp as a reserve/standby. The GOC 1 (UK) Div accepted the risk of single vehicle moves with a minimum of two personnel in the vehicle as tolerable. Exhibit 45 Exhibit 53

1.4.72. The Panel concluded that whilst the ratio of vehicles differed from what was recommended in the MAL 2 PDR the resource provided was adequate. The Panel therefore finds that the number of vehicles available on MAL3 was **not a factor**.

1.4.73. **Medical Preparedness**. Recommendations were made in the MAL 2 PDR to improve environmental medical preparedness on MAL 3, In particular Witness 23 Witness 25

was the requirement for a qualified Environmental Health Officer (EHO) to assess the immediate environment for the deployment of MAL 3 to identify the key risks to deployed personnel posed by local fauna, local food and potable[17] water sources. Commander 11 Bde tasked an EHO to visit LNP Ranger Camp to conduct an assessment of the risks from animals, disease, food and water, therefore the Panel finds that environmental medical preparedness was **not a factor**. Exhibit 13 Exhibit 16 Exhibit 26 Exhibit 27 Exhibit 28 Exhibit 42 Exhibit 69

MAL 3 Pre-Deployment Training

1.4.74. **Pre-Deployment Training (PDT)**. Prior to the STTT being accredited as 'operational' the STTT conducted PDT in the UK and RSOI in Malawi. The design and delivery of the PDT was completed by OC STTT with direction and guidance from 11 Bde and CO 1 COLDM GDS. The PDT period lasted for 5 weeks (14 January – 21 February 2019). Witness 5, Witness 14 Witness 20 Exhibit 78

1.4.75. The training programme for PDT was as follows: Exhibit 78

a. Week 1 focused on team medics qualifications.

b. Week 2 focussed on driver training.

c. Week 3 was Mandatory Annual Training Tests (MATTs), including a cultural and environmental brief on Africa and a visit to London Zoo to familiarise personnel with large animals in a controlled environment.

d. Week 4 focussed on weapon training.

e. Week 5 was dedicated to mission specific training (MST) and focussed on theatre specific matters such as human rights briefs, LNP intelligence updates regarding poaching in the area and health and safety briefs.

1.4.76. The building block of any PDT syllabus are the MATTs. These include: Witness 20 Exhibit 2, Exhibit 79

a. MATT 1 Personal weapon training.

b. MATT 2 Physical fitness.

c. MATT 3 Battlefield casualty drills.

d. MATT 4 Chemical, biological, radiological and nuclear (CBRN).

e. MATT 5 Navigation.

f. MATT 6 Values and standards.

g. MATT 7 Operational law.

[17] Potable water is water that is safe to drink and tastes good.

h. MATT 8 Survive, Evade, Resist and Extract (SERE).

i. MATT 9 Counter-Improvised Explosive Device (C-IED).

All mandated training was recorded in deploying personnel's 'deployment passport'. The deployment passport shows that all MATTs, less CBRN (4) and C-IED (9) were completed. In addition, the Combat Related Sexual Violence (CRSV) online course was not completed but a CRSV brief was given. 4x4 driving awareness training was also not recorded as being completed. The deployment passport also includes the Kenyan driving matrix test. This was used in the absence of a Malawian driving matrix test[18] as it provided the necessary awareness for a driver to be able to understand the testing conditions encountered when driving in an African country. The Panel concluded that the deployment passport is a tried and tested method of recording an individual's competency and therefore what tasks they can be given (driving, team medic, operating a rifle, patrolling etc). The Panel observed that under JSP800, if no driving matrix test exists for a specific country then the incumbent suitably qualified person, in this case the 11 Bde Master Driver, is able to nominate and certify the nearest and most appropriate matrix test. This was also assured by additional driving briefs focussing on the specific conditions and legal aspects of driving in Malawi.

1.4.77. Individual competencies, vaccinations, UK passport details etc for all individuals were also recorded in the STTT statement of readiness (SOR) which was briefed to Commander 11 Bde and GOC 1 (UK) Div. The SOR provided assurance to the chain of command that all personnel tasked to deploy were suitably qualified, in-date for vaccines, had their kit issued and had conducted the requisite training. Exhibit 79

1.4.78. MATTs are commonly conducted as part of PDT to ensure personnel remain in date for the duration of their deployment. However, when time is limited it may be permissible for non-relevant training to be omitted during PDT[19] to allow emphasis on the more pertinent and essential subjects. The reason for omitting MATT 4 and 9 was a sound decision based on the fact there was no CBRN or IED threat identified. 4x4 driver training was also not recorded as being conducted prior to deploying as all drivers deploying on MAL 3 were already General Service vehicle module one and two trained, which qualified all MAL 3 drivers to drive off-road, both day and night. Witness 5 Witness 8

1.4.79. The Panel concluded that PDT was appropriate and that missing MATT 4, MATT 9 and the CRSV online course from the PDT syllabus was **not a factor**.

[18] The matrix test is an on-line test which checks the understanding of the rules of the road and the 'highway code' for the particular country to which it relates. It does not provide you with experience or additional driving skills.

[19] MATTs which are not completed as part of PDT will routinely be completed at a later date.

1.4.80. **Physical Preparedness**. The STTT had been deployed for approximately 2 months at the time of the incident and Gdsm Talbot's team were on day 3 of an 8-day patrol. All members of MAL 3 had passed the physical requirements, in accordance with MATT 2, to qualify as physically fit to deploy. In addition, they were required to pass a test to demonstrate adequate upper body strength. This involved gripping a vertical rope and hanging with arms only to demonstrate they could lift their own body-weight. This was designed to simulate lifting themselves up a tree. Witness 1 Witness 5 Witness 8 Exhibit 84

1.4.81. In the Panel's opinion the rope hanging test did not accurately simulate the strength needed to climb a tree[20]. Therefore, the Panel finds that physical fitness was **not a factor** in this incident but that the upper body strength test was inadequate and was an **other factor**. Exhibit 2

1.4.82. **Recommendation**. GOC 1 (UK) Div should direct that a more suitable, mission specific operational fitness test is implemented. The test must assure the relevant component of fitness (strength) is developed to climb a tree. This should be introduced during PDT to ensure all Counter Illegal Wildlife Trade Short Term Training Team personnel can achieve the required standard[21].

1.4.83. **Driver Training**. Drivers conducted military mandated driving qualifications including passing the Kenyan matrix test. This qualified a person with a UK driving licence to drive military vehicles in Malawi. All drivers that deployed as part of MAL 3 were General Service (GS) Vehicle module one and two qualified. This meant they were already trained in off-road diving (day/night). The 11 Bde Master Driver authorised refresher training to take place in theatre and during RSOI by a qualified GS instructor[22]. The vehicle training week included familiarisation with the Toyota Hilux vehicle and the Kenyan driving matrix test. The in-theatre training covered vehicle fault finding and reporting, completion of an Authority To Use Document (ATUD), familiarisation on the Land Rover 110 and 130, loading, securing and unloading a casualty in the Land Rover 130. Witness 5 Exhibit 2

1.4.84. Once in Malawi most of the driving was conducted on tarmac roads or LNP dirt and gravel tracks. The standard of these roads and tracks varied depending on weather and maintenance. However, the majority were in fair to poor condition but would be drivable by non-specialist drivers with experience of the environment. At the time of the incident the STTT had been in theatre for nearly 6 weeks so personnel designated to drive were familiar with the state of the tracks and roads and the effects the environment had on them. The Panel concluded that personnel were acclimatised to their environment. Witness 7 Witness 9 Witness 3

1.4.85. The speed of vehicle movement during the incident was dictated in part by the poor condition of the tracks, uneven terrain and the requirement to stop to treat the casualty. In this incident the vehicle was not delayed due to the lack of

[20] The panel acknowledges that climbing a tree was not the taught drill for encounters with elephants. It was the taught drill for encounters with other dangerous large animals.

[21] 1 (UK) Div have ensured that the start standard and PDT for Op CORDED will include elements from the Soldier Conditioning Review (SCR) to ensure that upper body strength is suitable for climbing trees for those who conduct partnered patrols.

[22] The qualified GS instructor was the Company Quarter Master and the fault-finding instructor was Soldier G.

driver training. However, had the conditions been made worse due to weather then the enhanced off-road driver training conducted during RSOI and PDT may have proven beneficial. Therefore, the Panel finds that driver training was **not a factor**.

1.4.86. **Rifle training**. The standard issue rifle for the UK military is the L1A1 SA80 A2 (SA80 A2) personal weapon, which is a 5.56mm calibre rifle. All soldiers in the British Army are trained on the SA80 A2. All soldiers must pass their annual weapon handling tests and Annual Combat Marksmanship Test (ACMT) to be deemed competent. Infantry units will be expected to have more proficiency than other branches of the Army.

1.4.87. The SA80 A2 was deemed unsuitable for operations of this nature because whilst the 5.56mm round is effective against its intended targets it would significantly less effective against large dangerous animals. Therefore, UK personnel were armed with the L129A1 Sharpshooter, (see figure 1.4.4), which uses a larger 7.62mm calibre round which is more effective against large dangerous animals. Witness 5 Witness 28

Figure 1.4. 4. L129A1 Sharpshooter rifle

1.4.88. Prior to PDT most of the soldiers deploying on Op CORDED would not have used the Sharpshooter and were therefore inexperienced on this weapon system. As part of PDT therefore all personnel became proficient in the use of the Sharpshooter and passed the mandatory ACMT. However, the PDT did not include shoots using the Ruggedized Miniature Reflex sight (RMR)[23], nor did it include judgmental shoots to train its user to react quickly and appropriately. This meant that individuals had only a basic practical knowledge of the Sharpshooter and had little or no experience engaging targets at close range using this weapon system. Witness 5 Exhibit 78

1.4.89. The Panel found that it was not possible to determine whether reactive Sharpshooter training conducted prior to MAL 3 would have led to a different outcome in this incident. This point is linked to the mindset of the soldiers regarding the rules of engagement (ROE) they were operating under which is examined later. All personnel had reached the required standard of competency to deploy and use the weapon operationally. The Panel concluded that it is likely additional training would increase the level of confidence in the weapon prior to deployment and make its use more instinctive. Therefore, the Panel finds that the use of the Sharpshooter on Op CORDED was an **other factor**.

1.4.90. **Recommendation**. GOC 1 (UK) Div should direct that Sharpshooter training, using the Dismounted Close Combat Trainer,[24] where appropriate and if time permits, in the training of Counter-Illegal Wildlife Trade Short Term Training Teams in order to improve proficiency with their weapon system.

1.4.91. **UK based Mission Specific Training (MST)**. As part of PDT personnel conducted MST. For MAL 3 this consisted of one week of theatre specific briefs covering the following topics: Witness 4 Witness 5 Exhibit 78

a. Pay & allowances.

b. Theatre specific intelligence briefs.

c. Basic ground sign awareness training.

d. Health & safety.

e. Welfare.

f. Driving in Africa.

g. Legal and ROE briefs.

h. LNP specific briefs.

i. Heat illness briefing.

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[23] This sight is designed for reactive shoots in a close quarter environment.

[24] The Infantry Battle School (IBS) has confirmed it does have Sharpshooter on three DCCT(E) systems. DCCT judgemental scenarios can be used with the Sharpshooter but only using the Rugged Miniature Reflex (RMR) sight and not the main sight. Completion of the associated shoots requires approximately 2 hours per 2 firers.

j. Force protection briefs.

k. A Field Training Exercise (FTX) was originally scheduled prior to deployment but was cancelled due to the deployment date being brought forward.

1.4.92. A FTX is normally conducted to bring together the skills learned in a collective training scenario and confirm understanding and competence before deploying to conduct in-theatre RSOI. Witness 1 Witness 4 Witness 5 Exhibit 78

1.4.93. The Panel finds that not conducting the FTX before deploying was **not a factor** as the collective training aspect was covered during RSOI with a FTX conducted in-theatre. Witness 4 Witness 5 Exhibit 75

In-Theatre Reception, Staging & Onward Integration

1.4.94. **Reception, Staging and Onward Integration training (RSOI)**. The in-theatre RSOI package lasted for 4 weeks starting on the 4 March 2019. It provided a progressive training programme to develop tracking, bush craft, fieldcraft, navigation, theatre specific orders process and force-on-force counter-tracking. The programme included a FTX which, for most soldiers was the first time skills such as ground sign awareness (GSA) or bush craft had been practised collectively. Exhibit 4 Exhibit 75

1.4.95. Soldiers who frequently operate in varying types of environments, whether that is Arctic, desert or jungle routinely conduct several months of preparatory training before they are certified as operational. The type of environment experienced in LNP, (Figure 1.4.5), is close country[25] and should be no exception to the requirement for specific environmental training. The skills required to operate in the environment seen in LNP are similar to those taught for operating in the jungle. The Royal Ghurkha Rifles (RGR) routinely train and specialise in this type of operation. 1 COLDM GDS had three RGR Junior Non-commissioned Officers (JNCOs) attached to teach and mentor the soldiers on MAL 3 in jungle warfare skills to compensate for the lack of experience in the Battalion. Witness 5 Witness 14 Exhibit 26 Exhibit 38 Exhibit 84

[25] The terrain in LNP was a mixture of dense undergrowth, clumps of trees and long grass, resulting in limited visibility, restricted fields of view and impaired mobility.

Figure 1.4. 5. Aerial view of typical MAL 3 operating environment

1.4.96. The RSOI reinforced and expanded on the briefings given in PDT. However, many of the skills were being practised for the first time as there was no opportunity to conduct GSA or immediate action drills before deploying. This meant that for some personnel, whilst they had achieved the required deployment standards they were not as skilled as they could have been in GSA and tracking. The Panel concluded that the RSOI package made up for the shortened PDT and further prepared the individuals for the mission they had been tasked to undertake. The Panel also concluded that the inexperience of some of the soldiers in this type of environment, due to a shortened PDT was satisfactorily compensated for during the 4 weeks RSOI. Therefore, the Panel finds that RSOI training was **not a factor**.

1.4.97. **Routine in Camp**. The Company Sergeant Major (CSM) was responsible for establishing the routine in camp, specifically in relation to non-operational matters. The CSM, had full oversight and assured high standards of cleanliness, discipline, health, safety and camp routine in accordance with the MAL 3 standing instructions. The standards were further reinforced through the assurance visits conducted by the CO 1 COLDM GDS and the Commander 11 Bde. Therefore, the Panel finds that the non-operational routine in camp was not **a factor**.

Exhibit 5
Exhibit 26
Witness 5
Witness 8
Witness 14
Witness 17

1.4.98. **Health, Safety and Environmental Protection (HS&EP)**. In line with JSP 375 and 418 a thorough assessment of HS&EP had been conducted. A recce had been conducted by a team headed up by Commander 11 Bde to identify the operational and logistical opportunities on MAL 3. All ranks deploying on MAL 3 also received a HS&EP awareness brief from the SO1 FP from 1 (UK) Div. This covered the key points to do with cleanliness, disease, fire safety and operational risks. The points briefed during PDT had been effectively implemented in the camp routine. Fire extinguishers had been placed around the camp, smoke detectors fitted in the accommodation, designated smoking areas assigned, hand washing stations and sanitation were in place. The Panel concluded there were no HS&EP concerns and finds therefore this was **not a factor**. Exhibit 27 Exhibit 28 Exhibit 29

1.4.99. **Acclimatisation**. Being acclimatised (or not) to the operating environment can affect a soldier's ability to function effectively. The soldiers had conducted 4 weeks of RSOI before the STTT started. They had also been operational for an additional 4 weeks before the incident happened. Therefore, members of the patrol were acclimatised (in accordance with JSP 539). The Panel finds that the soldiers were acclimatised, and that acclimatisation therefore was **not a factor**.

1.4.100. **Tracking and Ground Sign Awareness (GSA)**. Tracking and GSA had been included in PDT and RSOI but not routinely practised or refreshed during the deployment. In this incident the patrol observed and identified the herd of elephants to their front and began to conduct the taught drill of slowly backing away and attempting to 'box' around the herd. Neither the lead scout, nor any of the other patrol members, observed any indicators or warnings of an imminent attack. Witness 1 Witness 11 Witness 12 Witness 13

1.4.101. Experienced and qualified instructors are available from the Jungle Warfare Wing Brunei Training Team (JWW BTT) to deliver tracking and GSA training. This qualification is achieved from the Operational Training Instructor Course (OTIC) jungle tracking courses in Brunei. The OTIC course, of which there are 3 per year, is designed to teach GSA / tracking in all environments to track humans or wild animals.

1.4.102. One of the APRs on the patrol had 4 years' experience as a Ranger in LNP and did not observe any GSA or indicators and warnings, albeit he was the rear man in the patrol. This was corroborated by the other members of the patrol. The Panel concluded therefore that it is highly probable that there were no indicators or warnings of an imminent attack. Therefore, the Panel finds that the lack of experience and training in animal tracking is an **other factor**.

1.4.103. **Recommendation**. GOC 1(UK) Div should ensure that Counter Illegal Wildlife Trade Short Term Training Teams receive enhanced training in

understanding the environment and tracking / Ground Sign Awareness in order to reduce the risk of surprise attacks by dangerous large animals[26].

Section 3 – In-theatre patrol methodology

Safe Operating Environment

1.4.104. **Safe Operating Environment (SOE)**. Patrols on OP CORDED were conducted within a pre-determined and planned SOE. Figure 1.4.6. shows the SOE which was briefed to GOC 1 (UK) Div as part of the operational assurance brief on 14 February 2019. Exhibit 19 Exhibit 45

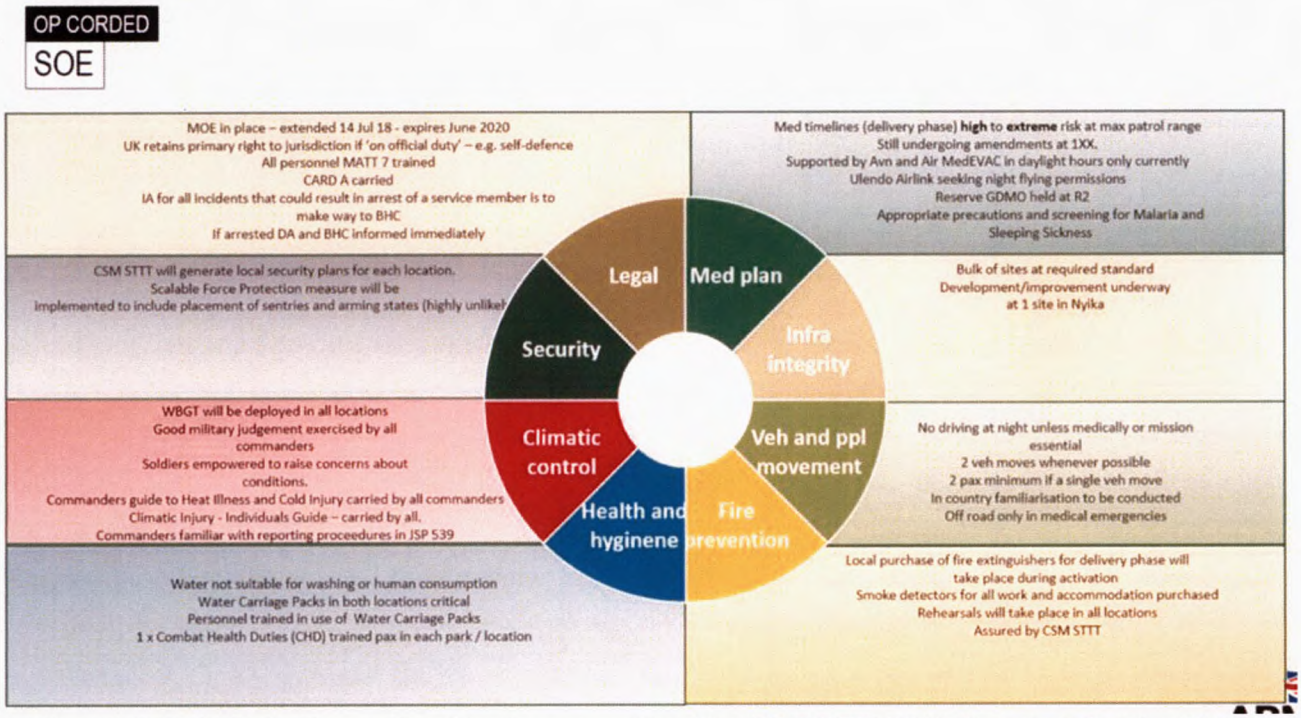

Figure 1.4. 6. Safe Operating Environment for Op CORDED MAL 3 as briefed to GOC 1 (UK) Div

1.4.105. The SOE was established as a result of a risk assessment conducted by 11 Bde. It considered the requirement to achieve the mission against the resource available whilst maintaining the risk to personnel as ALARP and tolerable. Specifically, being able to operate within a realistic and appropriate casualty evacuation timeline for the type of operation. On MAL 3, the operations boxes within this SOE were also designed to act as control measures to deconflict patrols, focus activity and aid in accurate reporting of illegal poaching activity. The operations boxes were geographically placed to suit either the short or long patrols. Witness 28 Exhibit 64 Exhibit 65

[26] As part of the Army's own internal inquiry this recommendation has already been factored in and regular refresher training and enhanced GSA training is part of the routine training programme for CIWT STTTs. Where possible those soldiers participating in patrols will also attend a bespoke 3-week Op CORDED Cadre consisting of a 2-week Basic Trackers' course and wildlife specific familiarisation training in country with a world class SME.

1.4.106. The mapping showed operations boxes as well as a colour coded schematic (Green, Amber, Red), to show 'go' and 'no-go' areas. Figure 1.4.7. shows the AO for MAL 3 with Figure 1.4.8 showing a schematic representation of the SOE. These areas were prescribed depending on what assets were available for casualty evacuation and the accessibility of the park roads. In Figure 1.4.8. the green zones show areas that patrols can operate within the SOE. The amber zones show areas that could potentially be exploited by patrols if the SOE was extended. The red zones show areas which were accessible for patrols without aviation support.

Exhibit 19
Exhibit 80

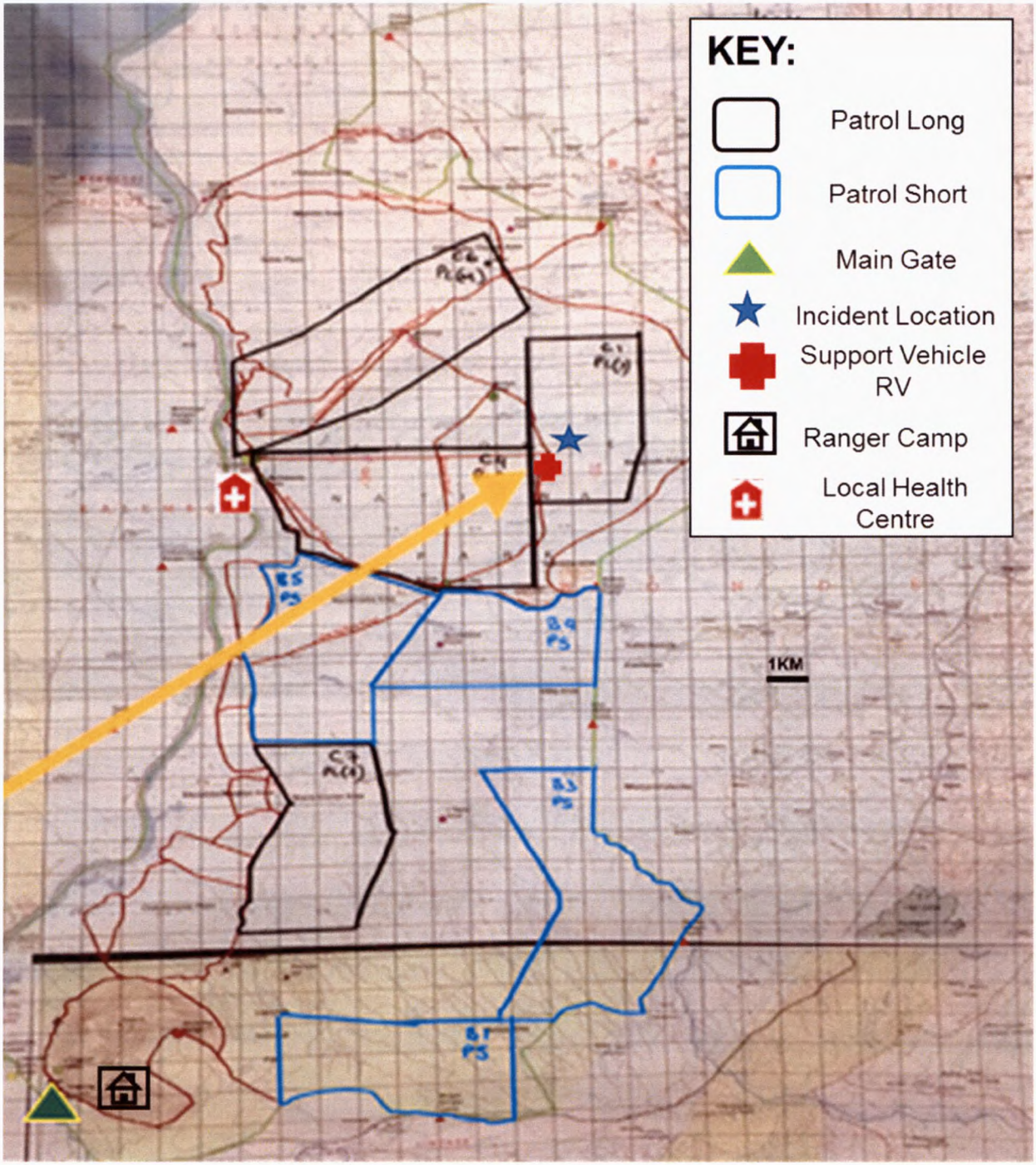

Figure 1.4. 7. MAL 3 Area of operations and operations boxes[27]

[27] The map is relatively comprehensive but does not show all the tracks that were used by the STTT.

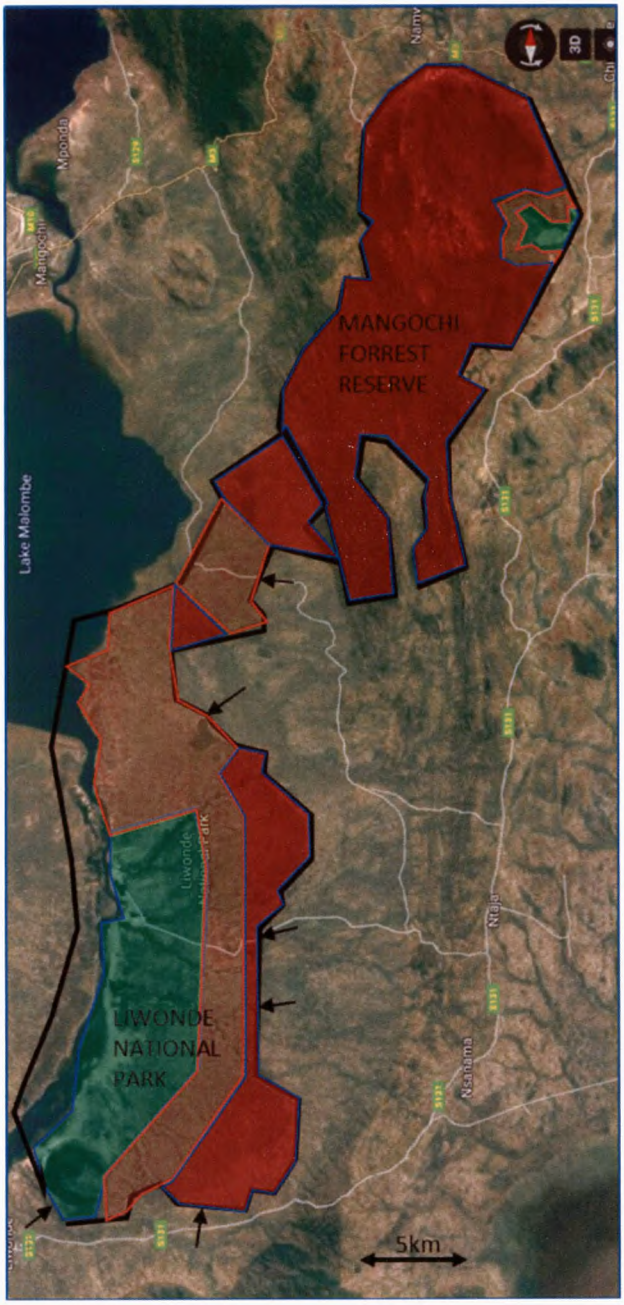

Figure 1.4. 8. Schematic representation of MAL 3 SOE

1.4.107. At the time of this incident the members of the patrol were operating within the agreed SOE and conducting their assigned duties in accordance with their orders and training. The SOE was adhered to throughout this deployment and as far as the DDH and ODH were concerned, risks had been made ALARP within the resources available and within Army approved policy guidelines. However, the medical timeline will be examined in more detail in section 4.

Witness 14
Witness 17
Exhibit 12
Exhibit 41

Patrol Composition

1.4.108. **Patrol Size**. The STTT was spilt into two teams of twelve UK personnel, which was sub-divided into patrols. The SOE mandated the minimum number of personnel in a patrol as four, with at least two of them being UK personnel. The patrol size at the time of the incident was five (two UK and three APRs). Exhibit 69 Witness 17

1.4.109. The minimum number in a patrol was set by 11 Bde as a force protection measure to ensure mutual support and that a UK trained team medic was available as a first responder in the event of a casualty[28]. The Panel concluded that in this incident the presence of the extra patrol member was fortuitous. It enabled three people to carry the stretcher and one to provide security whilst Soldier A administered first aid and led the CASEVAC. Witness 1 Witness 17

1.4.110. Soldier A was heavier than Gdsm Talbot. If Soldier A had been the casualty and noting the shocked state of the APRs and the relative inexperience of Gdsm Talbot, the CASEVAC would have been significantly more difficult and taken longer. A four-man patrol would have struggled to evacuate a casualty over distance in this environment, with only two people to carry the stretcher and one to provide cover or medical care. Additionally, there would have been no resilience for multiple casualties. Exhibit 24 Witness 1

1.4.111. The Panel concluded that the success of the initial CASEVAC from the point of wounding to the RV with the CMT was solely down to Soldier A's experience, excellent leadership and personal strength as well as the availability of three APRs. The Panel finds therefore that patrol size and constitution was an **other factor**.

1.4.112. **Recommendation**. Commander 11 Bde should ensure that Counter Illegal Wildlife Trade Short Term Training Team patrols are a minimum of six-people, rather than four, of whom at least 2 of those personnel should be UK soldiers in order to allow for mutual support, buddy-buddy drills and treatment and evacuation of casualties[29]. Exhibit 7

Standard Operating Procedures

1.4.113. **Standard Operating Procedures (SOPs)**. SOPs are a fundamental part of military operations as they promote best practice on matters of policy, doctrine, experience and lessons identified. At the time of the incident there were no formalised SOPs for the STTT. Exhibit 3 Witness 4 Witness 20 Witness 28

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[28] When 11 Bde took over Project BEEKEEPER (Op CORDED) in 2018, single UK Service personnel were deploying on multi-day patrols with APRS. Commander 11 Bde reviewed the patrol composition profile and immediately instigated the rule of rule of 2 UK personnel per patrol, so that the buddy-buddy system could be applied to self-protection, first-aid and communications.

[29] This recommendation has already been implemented by 11 Bde and adopted for the remainder of MAL 3 and on MAL 4. 11 Bde Return to Patrolling CONOPS brief refers to 6-person patrols with a minimum of 2 UK personnel. The memorandum of understanding between the UK and the host nations in which the UK CIWT STTTs are operating caps the number of UK personnel in-theatre to thirty. This puts a significant constraint on how manpower can be allocated and employed. Therefore, it makes operational sense to increase the number of APRs in a patrol to achieve the desired effect of increasing redundancy and the ability to extract a casualty.

1.4.114. As a result of the incident the 1 COLDM GDS Ops Offr subsequently produced a set of SOPs dated 15 May 2019. These SOPs included comprehensive instructions for pre-patrol, during patrol and post patrol activity. He also produced a patrol commander's SOE crib card which can be seen at Figure 1.4.9. Exhibit 6

MAL 3 – PATROL COMMANDER'S SOE CRIB CARD

	PRE PATROL
BRIEF	• Ensure your Ops Box is clearly defined and marked on your map. • Ensure you are clear who you need to speak to in order to extend your Ops Box if required. • Deliver a comprehensive SMEAC brief to your partnered forces. This brief **must** include actions on dangerous game.
SUPPORT	• Ensure you know where your CMT support will be based. • Make sure you are aware of your level of aviation support for the duration of the patrol.
KIT AND EQUIPMENT	• Check that your patrol is carrying to required medical kit. • Check your patrol is carrying a stretcher. • Partnered Forces must be made aware of the location of both above. • Ensure your patrol has firecrackers for scaring game. • Check for correct equipment to clear and mark an HLS.
	ON PATROL
NAVIGATION AND USE OF GROUND	• Know where you are at all times, ensure you remain within your Ops Box. • Elephant grass (over head-height) is OOB unless in extreme circumstances.
HLS IDENTIFICATION	• You are to patrol no further than 1.5Km from a recorded potential HLS.
AMBULANCE EXCHANGE POINTS	• You are to be no further than 3Km from an AXP.
LUP	• Your LUP must be no more than 1Km from an AXP. That AXP must be physically recced before last light. • Your LUP must be established NLT 1hr before last light.
COMMS	• If radio comms go down you are to move to an RV 100m from a road and us satphone to speak to your support vehicle. Direction will follow.
	POST PATROL
INFORMATION GATHERING	• Information from patrols must be recorded. Prominent HLSs and AXPs must be logged on Geosuite, drive times/distances must be recorded to inform future patrols.

Figure 1.4. 9. Patrol Commanders crib card – Op CORDED (post incident)

1.4.115. The Panel concluded that whilst SOPs were known, taught and briefed they had not, until after the incident, been written down and formally approved for use. As this was the third iteration of the deployment this should have been done. The Panel finds that the lack of written SOPs was an **other factor**.

1.4.116. **Recommendation**. Commander 11 Bde should direct that appropriate SOPs are developed which include all immediate action drills in order to ensure best practice is standardised[30].

Patrol Orders

1.4.117. **Patrol orders, briefings and rehearsals**. To ensure shared situational awareness and commonality, the UK personnel and APRs operated using the briefing format known as SMEAC. This stands for Situation, Mission, Execution, Administration, Logistics and Communications. Table 1.4.2. below shows what each part of the briefing format means: Exhibit 6

SITUATION	Describes the reason for the task, what has happened and what is happening now and why.
MISSION	Describes the task, time, place and limitations. What effects are required by the patrol.
EXECUTION	Tells the team what the plan is. How the mission will be achieved.
ADMINISTRATION & LOGISTICS	What are the essential elements of support and resources required. What is the medical and resupply plan etc. How will this be achieved and by whom
COMMUNICATIONS	Who is in control, what is the primary means of radio or phone communication. Who and what should be informed and how.

Table 1.4. 2. SMEAC format

1.4.118. SMEAC is not the recognised NATO sequence of orders widely used by all UK military personnel. The SMEAC system promotes simplicity, hits the key points and is easily understood by military and non-military organisations. With this simplicity comes some minor gaps.

1.4.119. The SMEAC template was taught during RSOI and was the briefing format issued to all. It was a simplified briefing process and does not contain prompts for specific reference to actions on dangerous animals or poachers. Therefore, it was not routine during patrol briefs for the patrol commander to cover actions on or indeed confirm understanding with the patrol members. This was further compounded during partnered patrolling where it was common for UK personnel to deploy with up to three APRs for anything between 1 and 8 days at a time. These joint teams had limited experience of working together so may have been unfamiliar with STTT SOPs that should have been briefed in the orders process. Witness 4 Witness 5

1.4.120. The Panel found no evidence to suggest that pre-patrol rehearsals would have changed the outcome of this incident. However, adjustments to SMEAC templates, along with established procedures to discuss and rehearse dangerous animals 'actions on' would ensure that partnered patrols have a common understanding of the CIWT STTT orders process.

[30] 11 Bde have already implemented this recommendation, SOPs have been formalised and are republished before each deployment as they are kept under constant review.

1.4.121. The Op CORDED SMEAC orders template was amended after the incident to include specific reference to 'actions on' encounters with dangerous animals. The revised SMEAC template can be seen at Figure 1.4.10.

ORDERS - SMEAC
1. **SITUATION** a. Ground i. Best Use of Ground ii. Hazards of Dense Vegetation/Elephant Grass b. Enemy Forces i. Location ii. Numbers iii. Equipment iv. Most Likely Course of Action c. Friendly Forces i. Adjacent Units 1. Locations 2. Future Actions 3. Same Operation ii. Supporting 1. EHLS, Helicopters, vehicles, etc. d. Atts/Dets
2. **MISSION** a. Who, What (operation/tactical task), Where, and Why? (**STATED TWICE**) eg. **3 Section will conduct a patrol along the northern boundary in order to detect and deter poachers in that area.**
3. **EXECUTION** a. Concept of Operations i. Scheme of Manoeuvre (where and how you will move around in phases) ii. Support Plan (reinforcement) b. Tasks (within callsign) c. Coordinating Instructions i. Timings ii. Actions on (to include dangerous game)
4. **ADMINISTRATION AND LOGISTICS** a. Logistical Support – Weapons, Ammo, Rations, Water, Equipment. b. Medical – Location of Med Kit. c. CASEVAC Plan – Minor/Major, EHLS, RV's, AXP's, Timelines. d. Transport – Vehicles, Load Plan. e. CPER's – CPER's Kit, Extraction Plan.
5. **COMMAND AND SIGNAL** a. Signal Frequencies i. Primary ii. Alternate iii. Contingency iv. Emergency b. Command i. Locations ii. Succession of Command

Figure 1.4. 10. Revised SMEAC briefing format introduced 15 May 2019

1.4.122. The Panel concluded that SMEAC was appropriate for this environment when working with indigenous APRs and that the lack of prompts in the earlier version of SMEAC was **not a factor**. Witness 1

Patrol work and rest routine

1.4.123. **Work and rest activity prior to the incident**. The patrol was on day 3 of an 8-day patrol when the incident happened. The night before the incident (4 May 2019) the patrol had reached their LUP by 15:00. Witness 1

1.4.124. The patrol awoke the next morning (5 May 2019) and conducted pre-patrol preparations including eating breakfast and the daily patrol brief. They set off at 0700 and then stopped for a break at 09:00 for 15-20 mins. This was 1 hour before the elephant attack. Witness 1

1.4.125. The Panel concluded that the patrol was well rested and had adequate time for sleep in the LUP. Therefore, the Panel finds that tiredness and fatigue was **not a factor**.

Section 4 – The incident

Immediate Action

1.4.126. **Immediate Action (IA)**. As the patrol approached the long grass the lead scout identified at least three elephants at a range of approximately 30m to the front of the patrol. On initial sighting of the elephants the patrol did exactly what they had been trained to do; they halted and attempted to back track and move around the herd[31]. The patrol had back tracked for less than a minute when an unseen elephant charged. As the elephant closed on the patrol there was confusion about what the IA for charging elephants was, it differs from other dangerous large animals Witness 1 Exhibit 1

1.4.127. For dangerous large animals such as rhino, buffalo etc the taught IA is to climb a tree. For elephants the IA is to evade and take cover behind trees and bushes. This training was delivered as a single lesson with no regular refresher training. In the heat of the moment the UK patrol members took the decision to run and climb trees. The APRs, in contrast, ran into the bush. Witness 1 Witness 11 Witness 12 Witness 13

1.4.128. The action of climbing trees was not taught because it does not usually provide protection from a charging elephant. However, it is notable that Soldier A believed this was the correct action to take and in line with what he had been taught. Interviews with personnel on MAL 3 indicated varying levels of knowledge regarding response to threats from specific animals. This demonstrates a lack of confirmation of understanding during the training phase. Witness 1 Witness 5 Witness 11 Witness 12 Witness 13

1.4.129. 11 Bde had not established a timetable for routine refresher training. Regular revision of characteristics and effective responses to dangerous large animals would have ensured that these principles were better ingrained and the response to this incident may have been different. MAL 3 personnel were not issued with an aide memoire on dangerous animals. Individuals did not therefore have a standardised and easily accessible reference to conduct their own refresher training. Exhibit 1

1.4.130. The Panel concluded that the absence of confirmation or routine refresher training led the patrol to adopt the incorrect IA for a charging elephant.

[31] The training was delivered by MOD contracted personnel from former South African, NZ and UK special forces and NZ Army who were experts in operating in the kind of environment seen in the Malawian National Parks.

The Panel finds that the lack of confirmatory training on the correct IA for dangerous large animals was a **contributory factor**.

1.4.131. **Recommendation**. Commander 11 Bde should direct that regular refresher training is programmed and recorded in order to mitigate the inherent lack of experience and prevent skill-fade for Counter Illegal Wildlife Trade Short Term Training Teams[32]. Exhibit 1 Exhibit 7

1.4.132. **Recommendation**. Commander 11 Bde should implement the production of a dangerous animals aide memoire and crib card in order ensure individuals on Counter Illegal Wildlife Trade (CIWT) Short Term Training Teams can conduct refresher training. This should be given to every UK military person deploying on CIWT tasks[33].

1.4.133. The Panel believe that that the charging elephant was highly likely to be a female protecting her calf. The evidence shows that it ran at the patrol from an unseen flanking position, thus giving the patrol very little time to react. The Panel finds that the attack by the unseen elephant was the **causal factor** in the incident. The incident highlighted some issues which will be examined in the following part of the report. Witness 1 Exhibit 1

Patrolling in long foliage

1.4.134. **Patrolling in long foliage (elephant grass)**: The terrain in LNP was a mixture of dense undergrowth, clumps of trees and long grass. The patrol was close to the elephant grass which concealed the elephants from view, thus the patrol did not observe any escalatory behaviour commonly associated with an aggressive elephant. Figure 1.4.11 shows the typical view of the elephant grass in LNP. Witness 1 Exhibit 1

[32] 11 Bde took immediate action to rectify this shortfall in training. MAL 3 personnel were given immediate refresher training prior to returning to patrols. This was outlined in the return to patrolling CONOPS produced by 11 Bde shortly after the incident in order to continue with the mission. The training was delivered in conjunction with APRs to ensure coherence with AP SOPs. The training was designed to ensure that all MAL 3 personnel understand the characteristics of specific dangerous animals and the principles of the appropriate response. This training was recorded in the deployment passport and fortnightly refresher training conducted. Exhibit 7 refers.

[33] 11 Bde have acted on this recommendation and have produced a dangerous animals aide memoir and crib card which has been distributed to all Op CORDED STTT personnel.

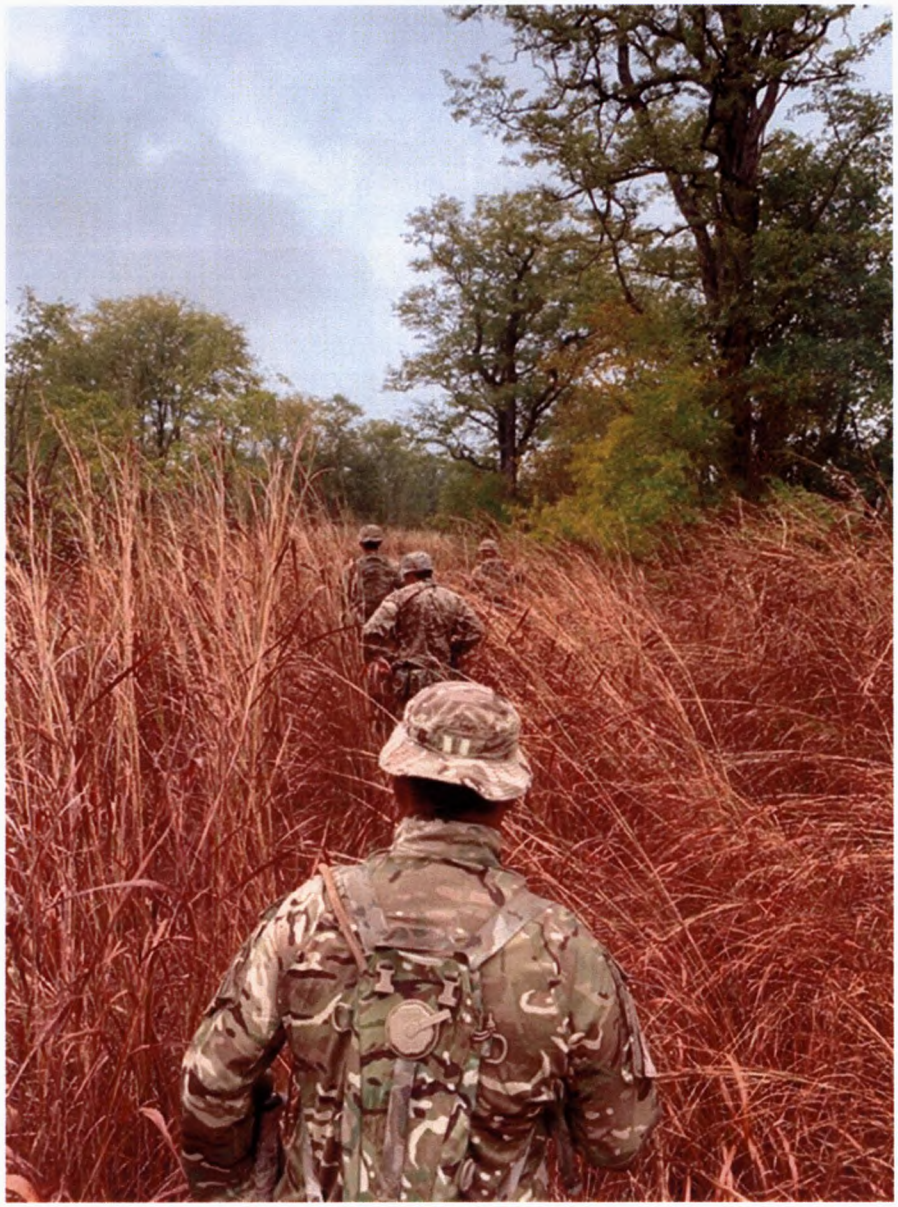

Figure 1.4. 11. Typical terrain in LNP. Elephant grass averages 6-7 feet tall

1.4.135. Lessons identified from MAL 1 and MAL 2 had recognised that elephant grass should be avoided if possible. To do this is difficult in this part of LNP as elephant grass is very common. This environment is a challenging environment for patrol commanders. They are required to make decisions and conduct dynamic risk assessments in order to balance the RtL with the benefits to the mission before entering the elephant grass. Witness 20 Witness 28 Exhibit 3

1.4.136. Patrols will normally be able to deliver effect, that is to dominate the ground and deny poachers freedom of movement, without entering this terrain. However, due to the proximity of the elephant grass the patrol did not observe or hear heightened risk indicators[34]. The first time they became aware of the Witness 1 Witness 11 Witness 12 Witness 13

[34] These warning signs can include a low deep rumbling noise, flapping ears, urinating and defecating and stamping feet.

attacking elephant; it was already very close, at a heightened state of aggression and was charging. The instinctive reaction of the team was to scatter, with the UK soldiers initially running and then took the decision to climb trees. The APRs in contrast headed for cover from sight. The Panel found no evidence that the patrolling team could have, at any stage, prevented the elephant charge. Exhibit 1

1.4.137. The Panel concluded that there may be occasions when patrolling in elephant grass is essential but should be avoided where possible. Use of terrain is always factored into patrol planning, however the significant additional risk associated with elephant grass requires special attention. The nature of the terrain and visibility was a central feature of this incident. The Panel concluded that the long grass concealed not only the elephants, but also the commonly observed warning signs issued by an agitated elephant. The Panel finds therefore that the proximity of the patrol to the long grass was a **contributory factor**.

1.4.138. **Recommendation**. Commander 11 Bde should ensure SOPs direct Counter Illegal Wildlife Trade Short Term Training Team patrols to keep away from elephant grass where possible in order to reduce the risk of attack by concealed elephants[35].

1.4.139. **Recommendation**. GOC 1 (UK) Div direct that the Counter Illegal Wildlife Trade Short Term Training Team soldiers are trained in identifying the risk presented by the various environments they are being tasked to patrol.[36] Exhibit 7

Use of Force

1.4.140. **Use of Fore / Card Alpha**. Rules of Engagement (ROE) were not issued for Op CORDED and could not be authorised by GOC 1 (UK) Div. The authority to do this is held by MOD and authorised through the Deputy Chief of Defence Staff (DCDS) Military Strategic Operations (MSO) via the Op CORDED Directive. An objective decision was made by the MOD not to set an ROE profile for Op CORDED, advising self-defence only. Therefore, the soldiers were operating under what the military call 'Card A' (JSP 398 Part 2 Annex D). Card A provides standing guidance for opening fire for Service personnel authorised to carry arms and ammunition on duty. It also provides guidance on opening fire as a last resort to save life. Card A requires Service personnel to only fire aimed shots, to fire the minimum number of rounds and to take all reasonable precautions not to injure anyone other than the target. Exhibit 59

1.4.141. It was evident to the Panel that there was confusion amongst the soldiers about the use of force and the application of Card Alpha in relation to dangerous large animals. In this incident some soldiers believed they had been Witness 1

[35] This recommendation has already been implemented by 11 Bde. SOPs dictate that elephant grass is avoided and circumnavigated at all costs, unless in an emergency. PDT covers the ground and vegetation likely to be encountered in the area of operations. Patrol planning factors training will be repeated as part of RSOI.

[36] 11 Bde have already addressed this recommendation and formally documented it as part of their return to patrolling CONOPS brief.

specifically told that they could not use lethal force against the animals they were there to protect. Under Card Alpha and the requirements there in, including taking all reasonable precautions not to injure anyone other than the target, lethal force would have been justified and proportionate in this incident. Taking all reasonable precautions would include consideration of the location of Service personnel and APR before opening fire.

1.4.142. In addition, under Card Alpha, warning shots are not specifically provided for, nor were they specifically permitted during MAL 3, however, warning shots were used by APRs to good effect in this incident[37]. Had warning shots been permitted and Soldier A able to comply with the requirments of Card A, he could have fired his rifle to scare the animal away after he had descended from the tree, this could have prevented the elephant from returning whilst he was administering first aid and simultaneously reorganising the patrol for CASEVAC. Witness 1 Witness 11 Witness 12 Witness 13

1.4.143. In these circumstances it is possible that Soldier A could have, at some stage, beyond the initial short-range charge, used lethal force to prevent or neutralise the attack. However, from his position in the tree he was unable to adopt a stable firing position and his direct line of sight was partially obscured by foliage. He would therefore have been firing un-aimed shots. To do this could have put Gdsm Talbot or the APRs at further risk and would have been outside the Card A requirement to fire aimed shots and to take all reasonable precautions not to injure anyone other than the target. Witness 1

1.4.144. The APRs advised that a well-placed 7.62mm round to an elephant's head might have terminated the threat, however it would be more likely to take several rounds and even then the results would be hard to predict. The Panel could not determine that engaging the elephant with the Sharpshooter rifle in these circumstances would have prevented Gdsm Talbot being injured. What is clear is that rifle noise is a more effective deterrent than devices such as fire crackers. The fire crackers were effectively used by Soldier A but were not routine issue for UK military; they were locally purchased as a means of providing greater mitigation against the risk from dangerous animals. In this case there would have been little or no time to escalate or prevent the attack occurring, however the use of the rifle rather than noise simulation is much quicker as the weapon should already be in the shoulder. Witness 11 Witness 12 Witness 13

1.4.145. The Panel concluded that whilst the the lack of clarity about the ability to use lethal force against dangerous large animals would not have materially affected the likelihood of this incident happening but it did create an unhelpful, dangerous uncertainty which resulted in hesitation in a time critical incident and could impact future encounters of this type. The Panel finds therefore that uncertainty about the use of lethal force was an **aggravating factor**.

1.4.146. **Recommendation**. MOD (Secretary of Policy and Operations) and DCDS (MSO) should revise the Deputy Chief of Defence Staff (DCDS) Directive

[37] Soldier A instructed the APRs to fire warning shots as he wasn't permitted to under card A but believed that the APRs could under their own ROE.

in order to clarify the use of lethal force and include the use of warning shots for Counter Illegal Wildlife Trade Short Term Training Team soldiers[38].

1.4.147. **Recommendation**. GOC 1 (UK) Div should ensure that use of force training is conducted as part of PDT, and regularly refreshed in order to ensure that soldiers involved in Counter Illegal Wildlife Trade tasks fully understand the guidance provided on opening fire as a last resort to protect life[39].

Reaction Time

1.4.148. **Reaction time**. The patrol was focussed on the three elephants to their front which were approximately 20-30m away. As they were backing away the attacking elephant only became apparent when it emerged from the elephant grass at approximately 5-10m to their right flank with no prior indication of its presence, thus giving the patrol very little time to react. Figure 1.4.13. shows the 1 (UK) Div reaction time prediction which was briefed to GOC 1 (UK) Div by SO1 Force Protection. Using this model, it would have given the patrol, at the very most, 2 seconds to react to the elephants to their front, had they charged, and no time to consciously react to the elephant charging from the right flank. The Panel concluded that the lack of reactive or judgemental shooting practices would not have made a difference in this specific incident. However, for future CIWT activity which, for example, could see encounters with charging elephants at any range, the reaction time could increase. Any increase in reaction time also improves the likelihood that a CIWT soldier could take an aimed shot to neutralise or scare an elephant away. The likelihood of a soldier taking an aimed shot in such a dynamic situation is improved through training.

Witness 1
Witness 12
Witness 28

[38] Following the incident this recommendation was directed by MOD and implemented by GOC 1 (UK) Div. Clarifying direction was provided although ROE have not been authorised. The Op CORDED directive now states that: '[redacted]

[39] This recommendation has already been actioned by GOC 1 (UK) Div and 11 Bde and ROE refresher training is included as part of the in-theatre training programme.

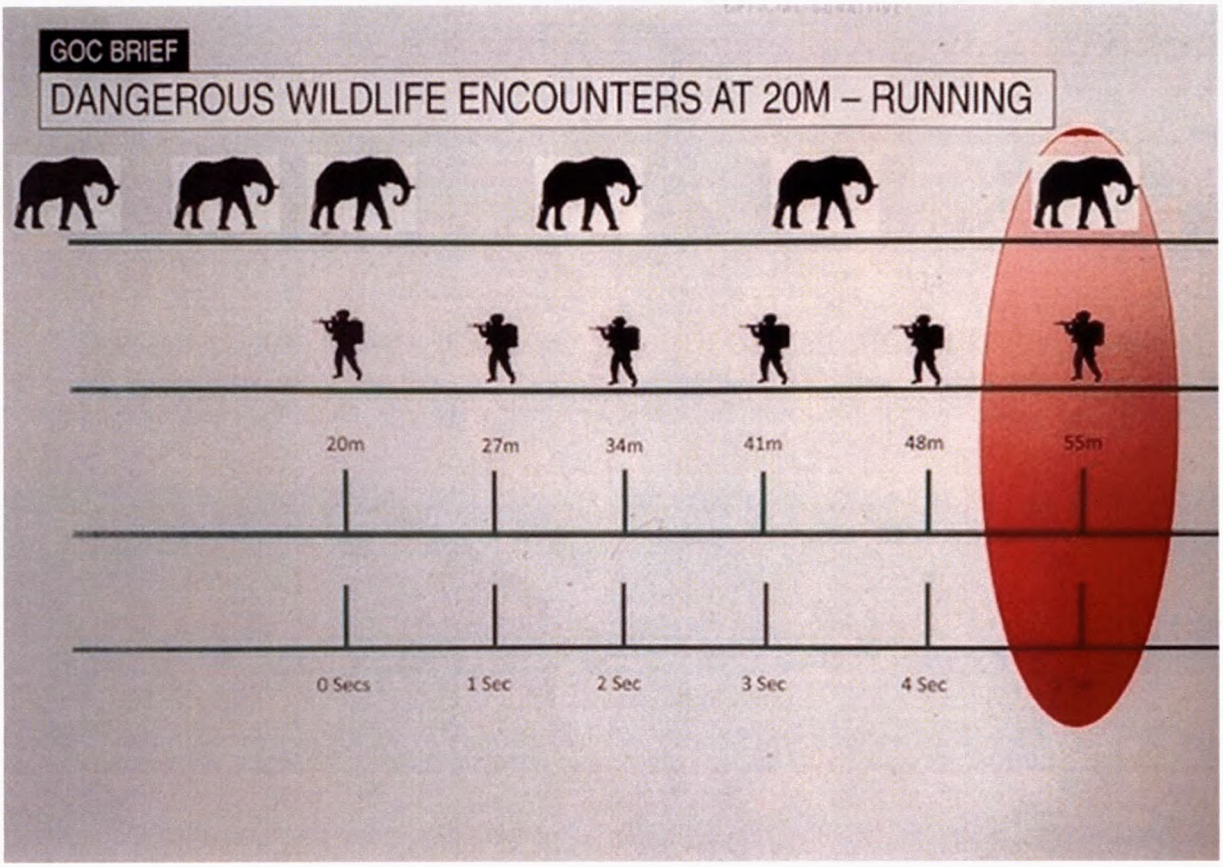

Figure 1.4. 12. Estimated reaction times vs distance for a charging elephant

1.4.149. Given the lack of indicators previously examined, coupled with the very short reaction time it is unlikely that an inexperienced person would have been able to bring their weapon to bear in time. Once Soldier A had extracted himself from the threat and was up a tree, he was unable to use his weapon as he was hanging with one hand and his view of Gdsm Talbot was obscured. The Panel finds that the short-range engagement resulting in reduced reaction time was an **other factor**.

1.4.150. **Recommendation**. GOC 1 (UK) Div should direct that reactive shooting, with the Sharpshooter is incorporated into all Counter Illegal Wildlife Trade Short Term Training Team PDT, in order to maximise familiarity with the weapon in this environment[40].

Medical care during the incident

1.4.151. Prior to the deployment all personnel were qualified as team medics upon completing a week of training during PDT. The team medics course was delivered by the CMTs and recorded in the deployment passport. The course fundamentally teaches a soldier to conduct 'care under fire' training. It is

Exhibit 2

[40] This recommendation has been implemented by GOC 1 (UK) Div and 11 Bde. Reactive shooting from the Close Quarter Marksmanship Operational Service Pamphlet have been adopted for Op CORDED PDT. This includes a warning shot shoot.

designed to provide lifesaving first aid to stabilise a casualty who has received traumatic and catastrophic injuries.

1.4.152. The medical training received was of the required standard with every soldier being qualified as a team medic. Team medic training ratios are defined subject to operation type. The standard deployment ratios for team medics is 1:4 for combat units or 1:8 for other Arms. For Op CORDED, all personnel were team medic trained, which was bespoke to this operation alone. The fact that Soldier A was able to give Gdsm Talbot at least a fighting chance of survival is due to this training and the application of it in a pressured situation. Witnesses 1 Witness 2 Witness 10. Exhibit 2

1.4.153. Soldiers B, C and D were suitably qualified CMTs with varying levels of experience. They had all completed the mandatory refresher training in Battlefield Advanced Trauma Life Support (BATLS) prior to deployment. Updating and refreshing skills by completion of mandatory training and BATLS demonstrated good preparation. CMTs were suitably qualified and experienced personnel (SQEP) prior to the deployment. It is worthy of note however, that the 1 COLDM GDS Learning Account acknowledges that there was no reason to hold the Paramedic back and that as the most qualified medical person available his early deployment may have been beneficial to Gdsm Talbot's treatment. For future operations of this type the immediate deployment of the Paramedic will become standard procedure when it is deemed clinically appropriate, such as for a T1 casualty. Witness 2 Witness 6 Witness 10 Exhibit 1 Exhibit 25

1.4.154. The Panel concluded that Gdsm Talbot received the best level of medical care he could have possibly been given under very challenging circumstances. Soldier A, the CMTs and the Paramedic were superb and worked to the limit of their skill sets and the medical resources they had available. The Panel finds therefore that the team medic training and immediate medical care were **not factors**, but observes that the Paramedic could have been deployed sooner to maximise medical expertise forward. Exhibit 10

1.4.155. **Use of Fentanyl 800mcg lozenge**. During the incident the casualty did not receive pain relief in the form of Oral Transmucosal Fentanyl Citrate (OTFC). OTFC is the standard UK military issue pain relief when deployed on operations. Figure 1.4.14 shows the lozenge, designed to be placed in the mouth against the cheek and held in place, if possible, by the casualty. Witness 2 Witness 6

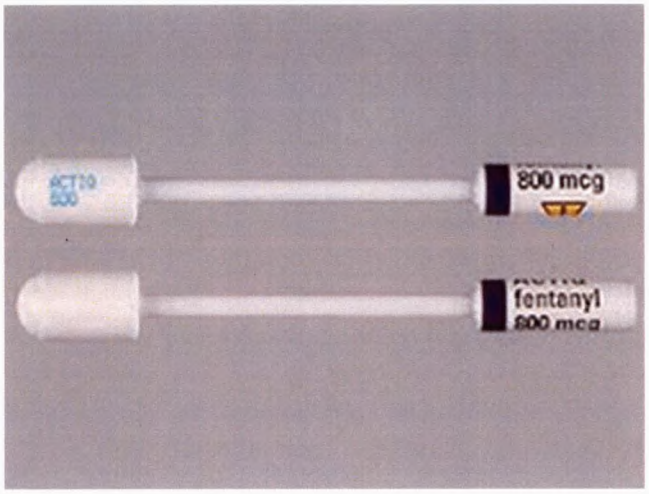

Figure 1.4.13. Fentanyl 800mcg lozenge

1.4.156. All team medics and CMTs involved in the incident had received training in the use of OTFC. Training advises not to administer some forms of pain relief such as morphine[41] in cases where there is a head injury, difficulty in breathing or chest injury Gdsm Talbot was displaying all those injuries and symptoms among others so the decision not to give OTFC was the correct one based on these factors. However, in a report produced by a Consultant Advisor in pre-hospital and emergency medicine he commented that no soldier should die in pain and that in this case OTFC could have been administered, a factor that neither of the SQEP CMTs or the Paramedic were aware of. This points towards a gap in the training syllabus for the use of OTFC. Exhibit 8 Exhibit 9 Exhibit 10

1.4.157. The Panel concluded that withholding OTFC was the correct decision given the nature of his injuries, the understanding of the contraindications of its use at the time and the absence of a suitable alternative form of pain relief for these common types of battle injuries. The Panel finds therefore that the lack of clear training in the contraindications and an appropriate alternative form of pain relief for use with head and chest injuries was an **aggravating factor**.

1.4.158. **Recommendation**. DG DMS should provide pain relief alternatives for use with head and chest injuries and develop training in their use. DG DMS should also clarify the contraindications for the use of OTFC in order that soldiers with head or chest injuries can receive battlefield pain relief using the current in-service OTFC.

Casualty Evacuation Method

1.4.159. Gdsm Talbot was moved by stretcher to the RV, a distance of 1.2 km over flat terrain which was covered in grasses and trees. The non-availability of the helicopter and the fact the air ambulance could only land on the airstrip close Witness 2 Witness 4 Witness 5 Witness 6

[41] Morphine was formerly used by military personnel as pain relief. Now replaced by OTFC.

to the Ranger Camp meant the only option for movement to either the airstrip or the LNP main gate was ground Medical Evacuation (MEDEVAC).

1.4.160. **Stretcher CASEVAC**. The stretcher CASEVAC took approximately 30 minutes whilst 3 of the patrol carried the stretcher the fourth, (an APR) provided protection from the herd of elephants by firing warning shots from his rifle. The attack occurred at 10:00. Soldier A immediately administered first aid, stabilised Gdsm Talbot and placed him in the stretcher. Due to the constant threat from the elephants and simultaneously reorganising the patrol this took 45 minutes. The patrol departed the point of wounding at 10:45 and arrived at the RV at 11:15, 15 minutes later than the 1 hour allocated in the '10-1-4' medical timeline. Witness 1 Exhibit 1 Exhibit 74

1.4.161. The Panel finds that the challenging conditions and the medical care administered by Soldier A en-route meant that the stretcher CASEVAC was **not a factor**.

Non-availability of the African Parks helicopter

1.4.162. **Non-availability of the African Parks helicopter**. As part of the agreement with African Parks a contract was in place for a set number of flying hours for the African Parks Bell 206 helicopter. Helicopters are a scarce resource in this part of Africa meaning that this asset covered several parks in the region. As part of its planned employment in other areas it had been re-tasked for use in Zambia at the time of the incident. This factor was known by OC STTT and he had adjusted and planned his patrols and CASEVAC/MEDEVAC options accordingly. As part of the mitigation for not having the helicopter the SOE had been reduced and patrols informed that CASEVAC/MEDEVAC would be by ground to the LNP main gate or the airstrip near the Ranger Camp. Witness 5 Witness 6

1.4.163. The contracted helicopter flying hours were limited to day only as the Bell 206 does not have night flying capability nor did the STTT have primacy for use of this asset. The Bell 206 provided a limited manoeuvre and reconnaissance platform and a basic casualty transportation option. It was not designed as, nor intended to be used as a MEDEVAC platform. The suitability of the Bell 206 helicopter as a MEDEVAC platform will be examined in section 5. Witness 5 Witness 6

1.4.164. On arrival in theatre OC MAL 3 ordered a MEDEVAC rehearsal to be conducted using the African Parks Bell Ranger helicopter. The helicopter rehearsal involved using a simulated casualty being picked up from a helicopter landing site (HLS), flown around and then dropped off back at the airstrip near the Ranger Camp. This proved the concept and confirmed that a prone casualty could be placed into the helicopter albeit with their legs extending out of the side of the helicopter with the side door removed. This offered some albeit limited space to conduct medical treatment en-route. The rehearsal did not complete the journey from LNP to Blantyre airport or the hospital, therefore the concept of a casualty exchange at the airport or hand over of the casualty to the hospital was not rehearsed. The assessment of the helicopter journey time was taken from the helicopter pilot who had completed the journey many times and Witness 5 Witness 6

assessed it to be around 30-40 mins. This concept was proven shortly after the incident when the helicopter, which had returned from its other tasking, was used to transport an injured soldier from the Ranger Camp.

1.4.165. The Panel established that the non-availability of the African Parks helicopter did not require patrol minimise[42] to be implemented as there was confidence in the ground MEDEVAC option meeting the medical timeline. OC STTT stated that the helicopter was not the primary means of MEDEVAC due to its unpredictable availability, inability to fly in all weathers or at night. Witness 5 Witness 8 Exhibit 12

1.4.166. The Panel accepts that helicopters are an expensive and scarce commodity whether deployed from the UK or contracted in theatre. However, in this region a helicopter could potentially have been used to support the STTT and other Defence Engagement operations that were being conducted by UK forces in the region and would have significantly reduced the MEDEVAC timeline.

1.4.167. In this incident the use of a helicopter would have expedited the extraction of Gdsm Talbot from an emergency HLS that had been identified approximately 500m from the point of wounding. Commercial aviation support cannot be guaranteed to meet MEDEVAC timelines as they will depend on availability and conditions at the time. Therefore, the Panel finds that the non-availability of a helicopter was an **aggravating factor**. Witness 1

1.4.168. **Recommendation**. GOC 1 (UK) Div should direct that during the operational planning and estimate phase, ground and air medical evacuation timelines should be verified and recorded in an appropriate risk matrix, with clear delineation of risk levels and risk ownership. Risk to achievement of medical timelines should be held at the appropriate level and the process for the dynamic transfer of risk through the Duty Holding chain should be agreed and tested prior to the deployment in order to ensure that either appropriate resource or operational constraint is applied in mitigation.

Fly / Drive decision for Casualty Evacuation

1.4.169. **Fly / Drive Decision for MEDEVAC**. There were two options for MEDEVAC available. The first option was ground movement using STTT assets to the airstrip near the Ranger Camp followed by air MEDEVAC from the airstrip to Blantyre airport and a road move to the Mwaiwathu Hospital in Blantyre. The second option was ground movement using STTT assets direct from LNP to the Mwaiwathu Hospital in Blantyre. Witness 5

1.4.170. The fixed wing MEDEVAC option was only available on request through ISOS and was provided by an air ambulance company operating from Zimbabwe. This option provided a fixed wing aircraft capable of advanced medical rescue that required an airstrip to operate from. There was an airstrip in LNP within 10 mins drive of the Ranger Camp. The plan was to extract the casualty by Land Rover 130 to the LNP airstrip and then fly from there to Witness 5 Exhibit 19

[42] Patrol Minimise means all unnecessary movement must cease.

Blantyre airport to conduct an exchange with an ambulance and drive to Mwaiwathu Hospital in Blantyre, some 20-30 mins drive away. The breakdown of the timings were:

- 1hr point of wounding to medic and decision to call ISOS made. Casualty moved to LNP airstrip.
- 1hr from notification to pilots being in the cockpit.
- 1hr 5 mins flight time from Zimbabwe to Blantyre airport.
- 30-60 min to clear customs.
- 13 mins to fly to LNP from Blantyre airport.
- 15 mins to load casualty
- **Accumulated time so far to advanced medical rescue - <u>4hr 33min</u>**
- 13 mins to fly to Blantyre airport from LNP.
- 20-30 mins for ambulance transfer from Blantyre airport to Mwaiwathu Hospital
- **Total time to DCS: 5hrs 16mins**

1.4.171. The use of the MEDEVAC aircraft, supplied through ISOS[43], was an unverified MEDEVAC method due to the lack of a rehearsal, however Commander 11 Bde had sufficient confidence in this option due to their previously proven track record. A rehearsal was considered by Commander 11 Bde, but not conducted, the rationale being the balance between risk and value for money. A rehearsal was prohibitively expensive[44] and would not have improved the assurance of the MEDEVAC capability as ISOS use the best clinical response available at the time. Therefore, on the day it is unlikely that the deploying ISOS asset would have been the same team used in the rehearsal. OC STTT had considered using ISOS and ascertained the timeline through enquiries with an air ambulance pilot. This option did not meet the approved '10-1-4' timeline in the SOE and was therefore discounted during the incident. Witness 5 Witness 17

1.4.172. The Panel concluded that based on the information and assets available to OC STTT, his decision making was logical and justified. The lack of a rehearsal with the air ambulance meant that OC STTT had not been able to

[43] ISOS represent the most broad ranging, comprehensive level of medical cover (inc MEDEVAC) in the continent. They provide medical cover to the majority of FTSE 500 companies and the entire US military outside of the continental USA. By working on the principle of sub-contracting to internationally assured MEDEVAC providers and having close liaison with medical facilities and responders, they coordinate medical responses through their regional operations centre in Johannesburg. They also provide clinical reach-back for medics forward. ISOS guarantees the best level of medical response available but cannot guarantee a timeframe because of the nature of sub-contracting. ISOS hold preferential agreements with most MEDEVAC providers such that they get the first offer of assets and in some cases has pre-arranged flight clearances in order to respond in the best time (such as ACE air ambulance flying from Harare to Malawi).

[44] Commander 11 Bde could have pursued additional funding if he believed it would have benefitted the operation.

test the solution to ascertain whether the reality was quicker than the estimate. The Panel finds that not conducting a rehearsal with the air ambulance was an **other factor**.

1.4.173. **Recommendation**. GOC 1 (UK) Div should direct that the medical plan for all Short-Term Training Teams is thoroughly rehearsed in order to prove the plan and provide confidence to the deployed commanders.

Ground Casualty Evacuation

1.4.174. The second and utilised MEDEVAC method was ground movement from the point of wounding to the hospital[45]. Each patrol was supported by a Land Rover 130 equipped with a stretcher, medical bergen and O_2 cylinders. A CMT and driver was allocated to each vehicle. The patrol was mandated to be no more than 1-hour foot move from the Land Rover 130. From the point of loading the casualty into the vehicle to the casualty arriving at DCS should take no more than 3 hours, thus within the '10-1-4' medical timeline. Table 1.4.3 shows the ground CASEVAC/MEDEVAC planning timeline.

Witness 2
Witness 6
Witness 7
Witness 10
Exhibit 18
Exhibit 19
Exhibit 28
Exhibit 45
Exhibit 62
Exhibit 69

Origin	Destination	Journey time
Point of wounding	Team medic on site	10 mins
Point of wounding	Land Rover RV	1 hour
Land Rover RV	LNP Main Gate	1 hour
LNP Main Gate	Blantyre Mwaiwathu Hospital	2 hours

Table 1.4. 3. Planning timeline for ground CASEVAC/MEDEVAC

1.4.175. The rehearsal of the ground MEDEVAC method took a similar format to the helicopter rehearsal. A simulated casualty was picked up from the furthest point of the STTT's SOE and transported to the LNP main gate[46]. In addition, OC STTT maintained a rolling-log of drive times to and from certain points in the park and all patrolling was conducted based on a patrol being no more than 1 hour's drive from LNP main gate. The journey time assessment from LNP main gate to the hospital was taken from routine transits driven by members of the STTT. It was assessed this would take no more than 2 hours. At no stage did the STTT conduct the journey with a simulated casualty and a CMT in the back of the Land Rover. The reason for this was that it was assessed too high a risk as the rear tail-gate was down to allow a prone casualty to be strapped in the back[47]. The data from the rehearsals was used to populate the 'CASEVAC calculator'.

Exhibit 18
Exhibit 19
Exhibit 20

[45] A robust ground MEDEVAC plan was essential as the availability and capability of helicopters is fragile. This is because ISOS aviation assets are beholden on Civil Aviation Authority regulations and require customs clearences, are not permitted to fly at night and are severely restricted by bad weather.

[46] The rehearsal did not consider treatment times or hand over times between CMTs and vehicles . Nor did it incorporate time required to stop and treat the casualty , day/night movement or roadworks which were prevalent along the road into Blantyre and in the city itself. Some members of the STTT said during interview that they believed that they could not drive at night even with a casualty. The Panel analysed the orders, and this was not the case, night time driving was permitted in extremis.

[47] The RtL from RTI in Malawi was assessed as one of the greatest risks faced by UK personnel on this operation.

1.4.176. During the Panel's visit to Malawi it conducted daily journeys from Blantyre to the LNP main gate which were recorded (Table 1.4.4) at various times of the day including the hours of darkness. Journeys were carried out in a Volkswagen 4x4 Sports Utility Vehicle. There was no casualty or un-secured CMT and kit in the back and so was able to move more efficiently than a Land Rover 130. In contrast the Land Rover 130 was wholly inadequate as a MEDEVAC vehicle and will be examined in detail in Section 5.

Origin	Destination	Journey time
Liwonde Park Gates	Mwaiwathu Hospital Blantyre	2hrs 7 mins
Mwaiwathu Hospital Blantyre	Liwonde Park Gates	2hrs 6 mins
Liwonde Park Gates	Mwaiwathu Hospital Blantyre	2hrs 4 mins
Mwaiwathu Hospital Blantyre	Blantyre Airport	22 mins

Table 1.4. 4. Malawi SI Panel journey times in VW SUV <u>not</u> Land Rover 130

1.4.177. Data in table 1.4.4 gives an average journey time of 2 hours 5 minutes between Mwaiwathu Hospital in Blantyre and LNP main gate[48]. From information received from the Ops Offr, OC STTT reviewed the decision regarding the ground MEDEVAC at approximately 1115 when Gdsm Talbot reached the RV with the CMT and Land Rover 130. He concluded that the drive option still provided the quickest and most assured means of reaching Mwaiwathu Hospital. Witness 4 Witness 5

1.4.178. The Panel concluded that the journey time from the AO to LNP main gate and the journey to Mwaiwathu Hospital in Blantyre was underestimated and did not consider important factors which would slow the journey. Therefore, the Panel finds that the absence of a realistic ground MEDEVAC rehearsal was an **aggravating factor**.

1.4.179. **CASEVAC Calculator**. The med plan stated a timeline of 4 hours from point of wounding to DCS at Mwaiwathu Hospital. However, the ground MEDEVAC rehearsal was not conducted from end-to-end, rather it was done in stages. This provided an inaccurate timeline and therefore the MEDEVAC calculation for LNP to Mwaiwathu was untested and unreliable. Witness 4 Witness 5 Exhibit 20

1.4.180. If an end-to-end rehearsal, with a simulated casualty had been completed it would have shown that the timeline was unachievable. The Panel therefore concluded that the lack of an end-to-end rehearsal produced inaccurate data. The Panel finds that the inaccurate data used in the CASEVAC calculator was therefore an **aggravating factor**.

[48] It is important to note that the data in this table is based on SI panel journeys in a more capable vehicle and not in a Land Rover 130 with a casualty in the back.

1.4.181. **Recommendation**. GOC 1 (UK) Div should direct that realistic CASEVAC/MEDEVAC rehearsals are conducted in order to obtain accurate journey times and validate the CASEVAC/MEDEVAC plan for Short Term Training Teams[49].

Activity in the Ranger Camp during and after the incident

1.4.182. At the time of the incident the OC and CSM of the STTT were conducting a recce in the northern parks of Mwaza and Nyika, in preparation for the next phase of the operation. The Ops Offr was coordinating the response and relayed information to the OC STTT so that he could make informed decisions. The following factors were observed by the Panel regarding the routine in camp.

1.4.183. **Quick Reaction Force (QRF)**. There was no dedicated QRF or fire picket mounted in camp. This meant there were no additional personnel allocated to deal with contingencies such as a serious accident, fire or to reinforce a team in contact with poachers. A QRF is normally appointed as a routine duty to act as dedicated support for patrols deployed on the ground or as personnel to patrol the camp to check for fire or other issues, particularly at night. A number of factors meant that maintaining a dedicated QRF was not practicable whilst maintaining operational output. The fundamental issue was the limitation imposed by the host nation on the number of UK personnel permitted in country for this task (set at 30). This provided only enough personnel to conduct the partnering tasks, run the HQ, provide medical cover, police advice and vehicle maintenance. The only on-call person was the paramedic who had a dedicated vehicle and was qualified to self-drive. Witness 5 Witness 17

1.4.184. On the day of the incident the team assigned to one day patrols had not gone out which enabled spare personnel to be called upon to provide support. The deployed patrols were mutually supporting, and each team had a CMT and Platoon Sergeant in a support vehicle, however they were not officially nominated as a QRF nor was reinforcement of another team rehearsed. The Panel concluded that the lack of a dedicated QRF did not impact on the MEDEVAC and treatment received by Gdsm Talbot in this instance. However, had the team on day patrols been out of camp there would have been limited personnel available to assist with this or any other kind of serious incident such as a prolonged contact with poachers. Therefore, the Panel finds that the absence of a dedicated QRF was an **other factor**. Witness 4 Witness 5 Witness 17

1.4.185. **Recommendation**. GOC 1 (UK) should direct that Counter Illegal Wildlife Trade Short Term Training Teams maintain nominated mutually supporting assets in order to mitigate the host nation deployed personnel limitations and provide options to commanders when dealing with incidents. These options should be thoroughly rehearsed during RSOI.

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[49] This recommendation has been implemented. 1 (UK) Div Operation Order 19-001 directs *"At a minimum, all personnel are to participate in a medical plan rehearsal of concept exercise. Full, physical, end to end, day/night rehearsals are to be directed by the DDH/ODH for specific aspects of the medical plan, where they deem appropriate and practicable. Rehearsal requirements will be specified in Div operational service writing* [orders]"

1.4.186. **Duty Driver**. There was no routine established for the provision of a duty driver. Drivers were allocated as required depending on who was in camp at the time. A duty driver is an individual whose primary task for the day is to drive a dedicated vehicle. On the day of the incident there were enough qualified drivers therefore, this did not impact on the MEDEVAC, but a duty driver was not allocated. Therefore, the Panel finds that the lack of an appointed duty driver was an **other factor**. Witness 5

1.4.187. **Recommendation**. Commander 11 Bde should direct that all Short-Term Training Teams hold a dedicated duty driver as part of the daily routine in order to ensure key personnel such as the paramedic or OC STTT have a dedicated driver available in case of emergency[50].

1.4.188. **Operations Room Routine**. The STTT CSM produced a comprehensive set of standing instructions which governed amongst other things the routine for patrol preparation, equipment care, discipline, dress regulations, security and discipline. However, the Panel found no evidence of a formalised watch routine and did not find any daily routine orders (DROs). On the day of the incident the Ops Offr was running the operations room. The Panel concluded that this did not impact on the MEDEVAC of Gdsm Talbot. However, it is acknowledged as good military practice to have a written watch rota published on DROs, so that at any one time there is an accountable point of contact present to provide direction and guidance to the deployed troops. Therefore, the Panel finds that the lack of a formalised and promulgated duty rota in the operations room was an **other factor**. Witness 4 Witness 5 Witness 8 Exhibit 5

1.4.189. **Recommendation**. Commander 11 Bde should direct that all Short Term Training Tasks run a duty officer roster, published on daily routine orders, in order to ensure that robust C2 is always available[51].

1.4.190. **Communications**. The main communications being used were issued Motorola radios shown in Figure 1.4.14. This was supplemented with issued satellite phones (SAT Phones) and personal mobile phones with local SIM cards. The hand-held radios were being used tactically for the patrols to communicate with each other, their support vehicle and the operations room; these proved mostly reliable. Witness 4 Witness 10 Witness 25

[50] This has now been implemented by 11 Bde and a dedicated duty driver is appointed daily.

[51] This has now been implemented by 11 Bde and a dedicated duty officer will be appointed to provide 24/7 cover.

Figure 1.4. 14. Motorola hand held radio. The primary means of communication in theatre

1.4.191. The first casualty report was sent by Soldier A to the operations room at 10:20 by Motorola. There was initially some difficulty establishing communications via Motorola, with Soldiers B and F who were in the support vehicle for the patrol, so Soldier C (a CMT) was despatched to the RV. Soldier B received notification of the incident at around 10:35 via SAT Phone from the Company Quartermaster Sergeant. Soldier B and F did not hear the initial radio call because they were conducting a replenishment task at Masangi hut. Once communication with them was established they moved quickly to the RV and arrived approximately 10 minutes later (10:45). Witness 6

1.4.192. During the incident the use of the SAT Phone to provide reach-back to the GDMO was unreliable. The Paramedic resorted to using his own mobile phone which worked more reliably. The Panel finds that the poor SAT Phone reliability was an **other factor**. Witness 10

1.4.193. **Recommendation**. GOC 1 (UK) Div should direct that reliable communications equipment is provided in order to provide an effective and timely UK reach back facility.

Medical Timeline

1.4.194. The key aspect around which the SOE was planned was the medical timeline. The medical timeline defines the time it should take to move a casualty from the point of wounding to DCS. It is governed by policy but is influenced by

availability of resources, geography and environmental factors. The medical timeline approved by GOC 1 (UK) Div for Op CORDED MAL 3 was 10-1-4.

1.4.195. **Application of policy to define medical timelines**. There are two main policy documents which were used in the planning of the medical timeline for Op CORDED MAL 3: Exhibit 12 Exhibit 15

a. Joint Service Publication (JSP) 950 Lft 1-4-1 V2.1.

b. Army Command Standing Order (ACSO) 3215.

1.4.196. JSP 950, from which ACSO 3215 in the Army is derived, defines the Operational Patient Care Pathway (OPCP). It is the unified approach for clinical care to all operational patients deployed on military operations. The OPCP in this incident consisted of the point of wounding (PoW), Tactical Field Care[52] (TFC), Enhanced Field Care[53] (EFC) and Damage Control Surgery[54] (DCS). TFC and EFC together are termed Pre-Hospital Emergency Care (PHEC). After DCS comes in-theatre surgery[55]. The application of the OPCP is informed by the 10-1-2+2 medical planning guideline. Exhibit 15

1.4.197. JSP 950 defines the first phase of the medical planning guideline as 10-1-2. This is a cumulative time. The +2 sets the location (by time) for in-theatre surgery. Exhibit 15

a. 10 minutes – TFC/Enhanced first aid is applied by a qualified Team Medic within 10 minutes of wounding. The aim is to apply life saving measures to preserve life prior to EFC.

b. 1 hour – EFC within 1 hour of wounding conducted by a CMT or equivalent.

c. 2 hours – DCS within 1 hour if possible but no later than 2 hours of wounding. DCS should be supported by a critical care unit. Interventions at this stage are designed to stabilise the patient pending further medical evacuation. In this incident that would have been provided by Mwaiwathu Hospital in Blantyre.

d. +2 hours – In-theatre surgery and enhanced diagnostics for the severely injured.

Table 1.4.5. shows the actual timeline achieved during the incident.

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[52] Tactical Field Care is those interventions necessary to save/stabilise life and prepare the casualty for medical evacuation. It can be provided by a qualified Team Medic. JSP 950.

[53] Enhanced Field Care is that emergency clinical care usually provided by a clinical team made possible by a more permissive environment using Battlefield Progressive Life Support (BATLS).

[54] Damage Control Surgery comprises of a range of surgical interventions targeted at halting deterioration of the patient's physiological condition rather than attempting definitive restoration of function.

[55] In-theatre surgery may consist of several surgical procedures spread over a period of time and may require the movement of the patient to another medical treatment facility.

Event	Time of day
Gdsm Talbot receives team medic treatment	1000-1045 (disrupted due to elephant re-attack)
Foot CASEVAC from PoW to CMT and RV	1045-1115 (1hr 15 mins after attack)
CMTs stabilise Gdsm Talbot	1115-1157 (1hr 57mins after attack)
Vehicle CASEVAC from RV to cessation of med treatment	1157-1417 (4hrs 17mins after attack)

Table 1.4. 5. Post incident CASEVAC/MEDEVAC timeline

1.4.198. The basic principle of OPCP planning is to ensure that expert medical care is delivered as soon as possible after wounding. The speed and quality of medical care can reduce the mortality and morbidity of patients. Evacuation should be to the most appropriate facility for the treatment of the casualty, noting that the most appropriate facility may not necessarily be the closest. All time delays carry clinical risk for patients. It is for commanders, advised by their medical staff, to balance these risks with operational and other factors and to determine whether the risks are acceptable. Exhibit 15

1.4.199. The approved SOE stated that the patrol could move up to 3km away from vehicle-worthy tracks and that each UK soldier was team medic trained. This gave assurance that a casualty would receive TFC from a team medic within 10 minutes of injury and that they could reach a CMT (EFC) and support vehicle within 1 hour by foot-borne evacuation[56]. Exhibit 6 Exhibit 20

1.4.200. In this incident the 10 minutes TFC was achieved by Soldier A and in line with JSP 950 guidelines. The 1-hour EFC timeline was missed by 15 minutes due to the persistent presence of the elephants hampering the ability of Soldier A to administer treatment and delayed the CASEVAC. The CASEVAC was further delayed by the requirement for Soldier A to reorganise the APRs who were all displaying signs of shock, send situation reports to the HQ and stabilise and move the casualty, over 1.2km through very difficult terrain to the RV with the CMT in the support vehicle. Therefore, the Panel concludes that the 10-1 part of the medical timeline was close to being met in accordance with JSP 950. Furthermore, the planning and resources were adequate to ensure the 10-1 timeline was met. The Panel finds therefore that the 10-1 (10 min to achieve TFC and the 1hr to reach EFC) part of the medical timeline was **not a factor**. Witness 1 Witness 11 Witness 12 Witness 13 Witness 26 Exhibit 1 Exhibit 13 Exhibit 14 Exhibit 18

1.4.201. The crucial aspect of this inquiry is the 4-hour part of the 10-1-4 timeline and whether it was achievable. The 4 hours in this case denotes the time it should take for a casualty to reach a Medical Treatment Facility (MTF) capable of providing DCS and in-theatre surgery. JSP 950 lays out the standard of MTF required, in-theatre, by UK personnel in order to fulfil the medical timeline criteria outlined above. Exhibit 15

[56] This is based on a foot move speed of 3Km/h.

1.4.202. There are five levels of MTF, these are termed Role 1, Role 2 Basic, Role 2 Enhanced, Role 3 and Role 4[57], with Role 1 being the most fundamental MTF. In this case provided by the CMTs and the Paramedic. The report has already ascertained that the Host Nation medical facilities in Mwaiwathu Hospital in Blantyre were capable of DCS with additional imaging, surgery, blood and anti-venom capability. Therefore, it could viably be classed as a Role 2 Enhanced hospital, potentially a Role 3 as it was capable of preparing a casualty for strategic aeromedical evacuation. In this case either to the UK or South Africa. This therefore broadly satisfies the criteria required for the 10-1-2+2 medical timeline. Hence on MAL 3 a 10-1-4 timeline was authorised. However, this is subject to interpretation and therefore the Panel assesses that the 10-1-4 timeline falls into the bracket of Prolonged Field Care (PFC). This is because it exceeds the benchmark 10-1-2 timeline described above in that a casualty would not practicably reach DCS within 2 hours but Mwaiwathu hospital was assessed by the MAL 3 Paramedic and the Panel's medical expert as being able to provide DCS and in-theatre surgery so met some of the criteria to justify it as a Role 3 MTF.

Exhibit 15
Exhibit 28

1.4.203. With these planning guidelines in place the 4-hour medical timeline from the point of wounding was authorised and the SOE implemented accordingly in order to meet the timeline. In order to meet the 4-hour timeline GOC 1 (UK) Div implemented control measures including the maximum distance for any medical RV to LNP main gate should be 28km[58]. This allowed a maximum of 1hr drive time to get to the LNP main gate and then a further 2 hours' drive time to Mwaiwathu Hospital. In this incident, Gdsm Talbot suffered [redacted] around 3 hrs 15 mins after sustaining his injuries and sadly died an hour later following valiant attempts by the CMTs and the Paramedic to conduct CPR. At this point it would still have taken well over 2 hours to reach hospital care as he was still 5.6km from the main gate of LNP.

Exhibit 1
Exhibit 13
Exhibit 20
Exhibit 22
Exhibit 28
Exhibit 45
Witness 2
Witness 4
Witness 6
Witness 7

1.4.204. The Panel therefore concluded that despite JSP 950 and ACSO 3215 being applied during the planning of the medical timeline the 4-hour part of the 10-1-4 was highly likely to be unachievable in this particular incident, given the severity of the injuries and the MEDEVAC resources available. Given the seriousness of the casualty and the limitations of the Land Rover 130, the Panel finds that not accurately assessing the likelihood of achieving the 4-hour medical timeline was an **aggravating factor**.

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[57] Role 1: Primary health care, specialised first aid, triage, resuscitation and stabilisation. Provided on MAL 3 by CMT and Paramedic.

Role 2 Basic: DCS and surgical procedures for emergency surgical cases, to deliver life, limb and function saving medical treatment. Those facilities found in an A&E.

Role 2 Enhanced: Provide all of Role 2 Basic plus additional facilities, resources and capabilities to stabilise and prepare a casualty for strategic aeromedical evacuation.

Role 3: Provides all of Role 2 Enhanced plus the ability to conduct specialised surgery and additional services as dictated by the mission and theatre requirements.

Role 4: Offers the full spectrum of definitive medical care that cannot be deployed to theatre or is too time consuming to be conducted in theatre. Role 4 normally provides specialist surgical and medical procedures, reconstructive surgery and rehabilitation. Those facilities found in for example, Selly Oak Hospital in the UK.

[58] According to the CASEVAC calculator used at the time.

1.4.205. **Recommendation**. GOC 1 (UK) Div should ensure that enough resource is provided to enable Short Term Training Tasks to operate within a meaningful and robust SOE.

1.4.206. **Competent Medical Authority (CMA) assessment of clinical timelines**. The CMA assessment of the clinical timelines was released on 13 February 2019. The CMA assessed the overall risk for MAL 3 as 'extreme' due to the extended clinical timelines. The risk assessment for pre-hospital emergency care was assessed as extreme due to the requirement for PFC and delayed access to DCS. Medical evacuation for the STTT was assessed as extreme due to the risk to continuity of patient care and clinical outcomes from extended clinical timelines. The CMA assessment of risk is comprehensive and in the report advises that the DDH should fully reassess the residual RtL and seek to manage this in accordance with the DH process. The DH process was followed and the ODH accepted and tolerated the risk as the extended clinical timelines. Witness 26 Exhibit 15

1.4.207. The Panel concluded that despite the clinical timelines being within policy(JSP 950 and ACSO 3215) and authorised by the ODH more resource could have been applied to reduce the clinical timelines. This therefore poses the question as to whether the policy that permits medical timelines to be extended rather than applying additional resource to reduce the risk needs to be reviewed. The Panel finds therefore that an extended medical timeline allowing the STTT to operate at extreme risk was an **aggravating factor**.

1.4.208. **Recommendation**. Deputy Chief of the General Staff should, through the Senior Health Advisor (Army) (SHA(A) conduct a thorough review of the policy dictating medical timelines for all Short-Term Training Tasks[59].

1.4.209. **Request for extension of medical timeline prior to the incident**. In order to increase and extend the effectiveness of Op CORDED, 11 Bde submitted a request to GOC 1 (UK) Div on the 16 April 2019 to increase the medical timeline to '10-1-6'. This would have allowed the teams to extend the SOE and operate in the northern parts of LNP. To inform this request, OC STTT conducted a driving recce from the furthest point north of the proposed new operating area to Mwaiwathu hospital in Blantyre, this was a total journey time of 5 hrs 35 mins[60], this was submitted to CO 1 COLDM GDS via the weekly ASSESSREP on 11 April 2019. GOC 1 (UK) Div considered the request and rejected it due to it extending the SOE beyond what he was prepared to authorise. Witness 5 Witness 17 Witness 21 Exhibit 22 Exhibit 23 Witness 10 Exhibit 45

1.4.210. The Panel observed that following the incident, the 10-1-6 medical timeline was approved by GOC 1 (UK) Div, albeit with reduced geographical operating areas. A 10-1-6 timeline is permissible under ACSO 3215 and presents extreme risk which requires toleration by the ODH following a CMA review; this process was followed appropriately. The view of the Panel is that by extending the medical timeline, even with a reduced operating area, introduces Witness 5 Witness 17 Witness 21

[59] NB: ACSO 3215 is already the subject of a separate Army review due to be published in Jan 2021.

[60] This timing was done during the day without a casualty or a CMT in the back of the vehicle.

an increased risk to a casualty. A 10-1-6 timeline is within policy and permissible, but the Panel believes that for a discretionary task such as this, simply extending the timelines puts additional risk on the soldiers and the CMTs and Paramedics who support them. It is likely that a similar incident in the future, involving similar kinds of complex injuries, would also lead to a fatality.

Medical supplies vs medical timeline

1.4.211. **Medical Bergen and Oxygen (O_2)**. The standard medical Bergen[61] issued to the Paramedic[62] and CMTs[63] were used in this incident. During the 4hrs and 17mins that Soldiers B, C and D were trying to save Gdsm Talbot's life they exhausted their level of clinical knowledge, skills and medical supplies. They had used the contents of two CMT Bergen's and most of the Paramedic's Bergen. This included 2 ltrs of saline and most of the 2 O_2 bottles. Witness 2 Witness 6 Witness 10 Exhibit 38

1.4.212. The CMTs identified a risk of running out of O_2 and therefore rationed it from the outset by dropping the flow from 15 l/h to 8 l/h. This maintained Gdsm Talbot's O_2 saturation levels at [redacted] which is adequate. The Panel concludes that the medical Bergen accessible to CMTs is fit for purpose based on a seriously injured casualty for a '10-1-4' medical timeline. However, for a very seriously injured casualty and a protracted evacuation timeline, as seen in this incident, the likelihood of running out of medical supplies is increased. The Paramedic assessed that given the missed timeline and the prospect of at least another 3 hours before reaching a hospital they would have run out of O_2. Witness 2 Witness 6 Witness 10 Exhibit 38

1.4.213. Since the incident the medical timeline for Op CORDED has been extended to '10-1-6'. Given that the two CMTs and the Paramedic had exhausted their saline and were near exhausting the available oxygen based on a '10-1-4' timeline the Panel believes that there may be insufficient medical supplies to sustain a casualty of this nature in a future incident. Exhibit 7 Witness 17 Witness 27

1.4.214. The Panel concluded that the availability of life saving medical equipment was just[64] adequate for the care administered. Therefore, it finds that the supply of life saving medical equipment was an **other factor**.

1.4.215. **Recommendation**. GOC 1 (UK) Div should direct that medical supplies are provided to Short Term Training Tasks to enable complex injuries to be managed over a prolonged period.

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[61] A Bergen is military terminology for a rucksack

[62] Medical module 586.

[63] Medical module 584.

[64] 'Just adequate' is indicative of the fact that oxygen had to be rationed and that two medical modules held by two CMTs were exhausted and the Paramedic's module was also significantly utilised. NB: one medical module should be adequate to sustain one casualty.

Cause of death and survivability assessment

1.4.216. **Cause of death and survivability assessment**. The Coroner's report recorded the cause of death as a [redacted]. This was further complicated by [redacted], the majority of which most likely occurred in the first 3 minutes after initial injury. The Panel was provided with a copy of the post-mortem report and a copy of a report by a highly qualified and experienced Defence Consultant in Pre-Hospital Emergency Care (PHEC)[65]. Having ascertained that the Mwaiwathu Hospital in Blantyre could have provided the requisite level of care, this report was vitally important in determining whether Gdsm Talbot's injuries were survivable if he had reached DCS within the '10-1-4' timeline. Exhibit 10 Exhibit 24

1.4.217. The Consultant in PHEC report confirms the findings of the post mortem and the statements given by the personnel involved with regards to the mechanism, range and severity of Gdsm Talbot's injuries. The report also reiterates the excellent standard and appropriateness of medical care given by Soldier A, the CMTs and the Paramedic. Exhibit 10

1.4.218. The report analysed Gdsm Talbot's injuries and used the data to get a scientific view of the chances of survival. The raw injury data was inputted into the Joint Trauma Registry database which was used to determine Gdsm Talbot's Injury Severity Score (ISS). The ISS is an established medical score to assess trauma severity. It correlates morbidity and mortality with hospitalisation time and is used to define the term major trauma. After further medical analysis and cross reference the report gave Gdsm Talbot's an approximate mortality rate of 40-50%. Exhibit 10

1.4.219. Consistent with the statements [redacted] by Soldier A and the CMTs, the PHEC Consultant confirmed that Gdsm Talbot [redacted] sustained during the initial attack by the elephant. His life was initially saved by Soldier A's action, but [redacted] continued to occur throughout the evacuation. [redacted] were used to treat Gdsm Talbot, however in the PHEC Consultant's opinion [redacted] products would have been preferable. However, due to limitations on storage and quality assurance these were not available to the CMTs this far forward in the MEDEVAC chain[66]. Exhibit 10

1.4.220. The Panel finds that the lack of blood products stored forward was an **aggravating factor**.

1.4.221. **Recommendation**. DG DMS should provide the capability to have appropriate long-life blood products available for Short Term Training Team tasks in order to improve the treatment of seriously injured casualties.

1.4.222. The PHEC Consultant's report states there was no single injury that could not have been treated if the patient had been rapidly conveyed to hospital Exhibit 10 Exhibit 24

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[65] Prior to being requested to produce his report, the expert had no prior involvement or conflict of interest in the incident

[66] DG DMS stated that this will require CMT protocols to change in order to allow a CMT or Paramedic to account for and administer alternative analgesia and blood products otherwise only a qualified medical doctor can do this.

by a pre-hospital emergency care team with advanced resuscitation capabilities. As such this death may be considered clinically preventable. Had Gdsm Talbot made it to DCS within 2 hours the benefits of the excellent point of injury care could have been better realised. Nevertheless, he had not managed to reach the hospital within the planned 4-hour timeline. However, to avoid misconceptions it is important to note that Gdsm Talbot suffered multiple serious injuries. The Consultant's report surmised that, based on the circumstances on the day, including the actual time taken for CASEVAC/MEDEVAC, the death of Gdsm Talbot was not preventable.

1.4.223. The Panel concluded that had the '10-1-4' medical timeline been met there was at least a 50% probability that Gdsm Talbot could have survived based on the ISS score. The underestimation of the medical timeline and the resources in place to assure it were inadequate. Therefore, the Panel finds that failure to meet the planned 10-1-4 medical timeline was an **aggravating factor**.

Section 5 – Equipment used on Op CORDED

Equipment - Vehicles

1.4.224. **Land Rover 130 (LR 130)**. The transport solution for MAL 3 was the twin cab LR 130 with a 'box body' as shown in Figure 1.4.15 and 1.4.16. The LR 130s were supplied by BPST (A). The LR 130s were an interim measure due to a delay in the supply of the bespoke Toyota Landcruiser ambulances which had previously been used on MAL 2. Exhibit 45

Figure 1.4. 15. Land Rover 130 twin cab support vehicle used on MAL 3

Figure 1.4. 16. Land Rover 130 rear cab equipped with stretcher and medical Bergen

1.4.225. The LR 130s were not designed to be ambulances. They would be more appropriately categorised as a safety vehicle, designed to move a casualty a short distance from, for example, a firing point on a range to a road RV with an ambulance. They had a stretcher and an oxygen cylinder strapped in the back and the tail-gate lowered to allow for a casualty to be on a stretcher.

1.4.226. The set-up in the LR 130 proved to be inadequate for casualty extraction over distance with no means of securing the casualty, the medic or their medical Bergen in place. This meant that the CMT had to continually stop the vehicle to be able to treat and stabilise the casualty, thus significantly prolonging the MEDEVAC timeline.

1.4.227. The vehicle had limited space in which to effectively treat the casualty. It did not have any bespoke storage space for easy access to essential medical supplies nor did it have any brackets to suspend intravenous (IV) drip bags, making the CMTs' job more difficult.

1.4.228. A more suitable ambulance would have made the CMTs' job much easier and enabled a faster MEDEVAC. Toyota Landcruiser ambulances arrived shortly after the incident and were assessed by the users to be a much better solution. Figures 1.4.17. and 1.4.18 show the Toyota Landcruiser ambulance with bespoke stretcher, oxygen bottle bracket, space for CMT to work, storage areas and an over-head bracket to suspend saline or blood packs for IV feeds.

Exhibit 45
Witness 2
Witness 6
Witness 10

The delivery date for these ambulances was scheduled for mid-May and was known prior to the incident. This delivery date was also briefed to the GOC during the conditions check brief prior to the deployment.

1.4.229. The Panel concluded that the use of the LR 130 as a MEDEVAC vehicle adversely impacted the speed of MEDEVAC and the CMTs' ability to administer treatment on the move. The Panel finds therefore that the use of the LR 130 as an ambulance was an **aggravating factor**.

Figure 1.4. 17. Toyota Landcruiser ambulance

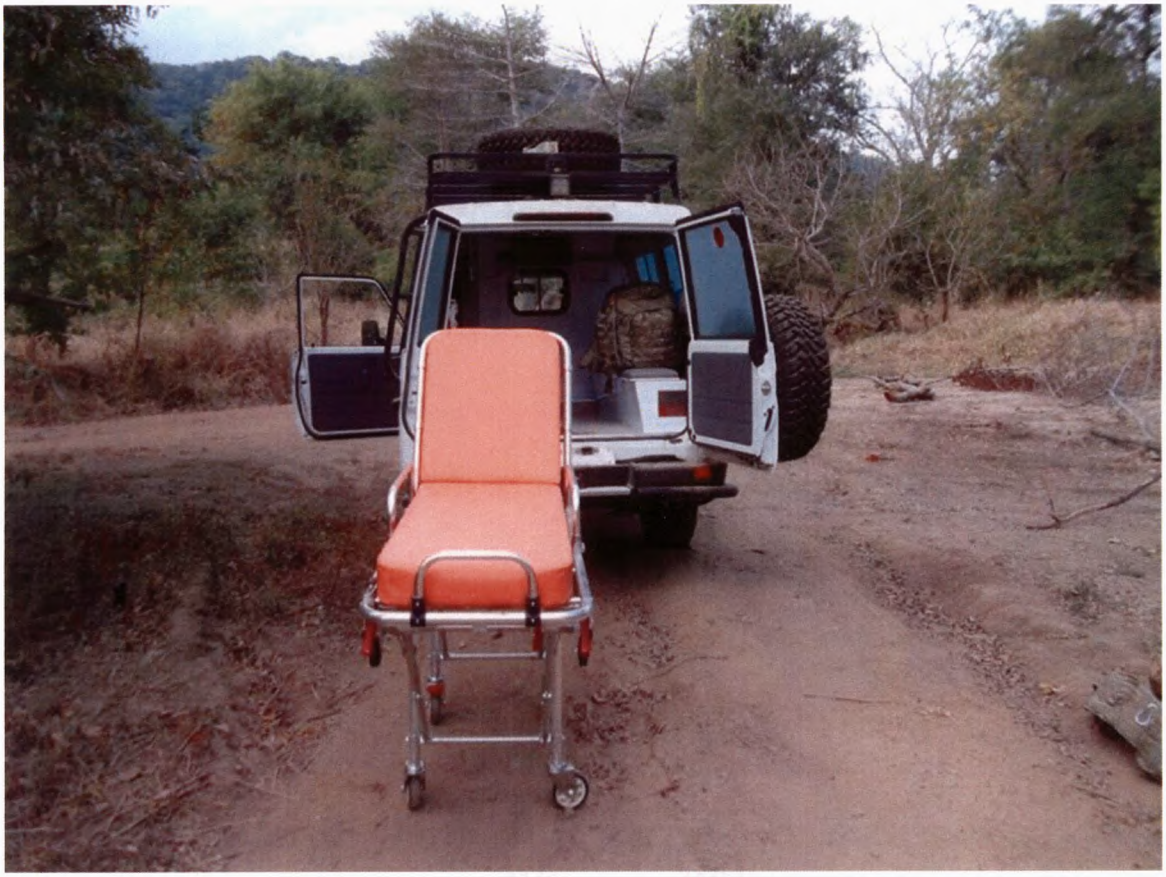

Figure 1.4. 18. Toyota Landcruiser ambulance with stretcher deployed

1.4.230. **Bell Ranger 206 helicopter**. Whilst this asset was not available on the day the Panel considered it important to examine its suitability as a MEDEVAC platform. Figure 1.4.19. shows that the simulated casualty's legs extend out of the side of the helicopter and are free-swinging so would move in flight. This would cause significant discomfort to a casualty with a spinal or lower-limb injury who needed to be transported laying down. Witness 10

Figure 1.4. 19. African Parks Bell Ranger 206 helicopter with simulated casualty

1.4.231. There is little room in the back of the helicopter and it does not provide enough space for a medic to effectively treat a patient, especially one in the prone position. In this incident the medic would have had to make the decision to be either at the head or feet end and would not have been able to effectively treat the full extent of the injuries sustained. Witness 8 Witness 10

1.4.232. Evidence requested from the Joint Air Delivery Test and Evaluation Unit (JADTEU), informed the Panel about how personnel or equipment should be secured in military helicopters. All equipment secured within military rotary winged aircraft are to comply with Defence Standard 00-003 para 10.3 and must be able to be secured to 3g forward, 1.5g rear, 1.5g left / right, 2g up and 4g down. (The forces that could occur in a crash landing or during aircraft manoeuvres / turbulence). When securing equipment, JADTEU assesses the load path of all attachment points and this is backed up by a full Engineering Airworthiness Assessment (EAA). It is clear from this evidence that the proposed method of utilising the Bell Ranger 206 for a prone casualty would not be compliant with Defence Standards. It would only be compliant for seated casualties. However, the Bell 206 helicopter does provide a faster and more versatile method of MEDEVAC than ground transport. The expert from JADTEU had the following concerns: Exhibit 71

a. The attachment points of the carabiners to the headrest providing rear restraint. This headrest appears to be rivetted and therefore would not be considered a suitable attachment point. Exhibit 71

b. The webbing straps on the stretcher would not be Defence Standards compliant, of note webbing straps used for restraint in military air transport has a shelf life of 5 years because of the effect of UV light degrading the material.

c. There was no evidence of vertical restraint should the aircraft suffer a 2g vertical incident (turbulence) then the patient could be lifted away from the seat. The looped seat belt is not providing any vertical restraint and none at all from the forward side of the patient using the carabiners.

1.4.233. For many of the potential CASEVAC/MEDEVAC scenarios the Panel concluded that the Bell Ranger 206 was a suitable CASEVAC/MEDEVAC platform. However, for prone, stretcher casualties the Panel concluded that the Bell Ranger 206 would not comply with JADTEU standards but in the Panel's view would have been quicker than ground movement. Witness 8 Witness 10

Equipment - Medical

1.4.234. **Tempus Pro**. The Tempus Pro is designed for use during expeditionary operations in remote areas. Its primary role is to monitor and record a patient's vital signs. It can also take photo and video and record any treatment interventions. It has a reach-back facility where it can call, or email nominated personnel, this would be done over a bespoke communications bearer. The system will log and record events and treatments as a PDF document, email or on a memory stick. This can then accompany the patient through the medical evacuation system and could also be of use to coroners during any investigation. The medics were issued with and attempted to use the Tempus Pro monitoring system during the incident, but it failed to function correctly. Figure 1.4.20. shows the Tempus Pro. Witness 10

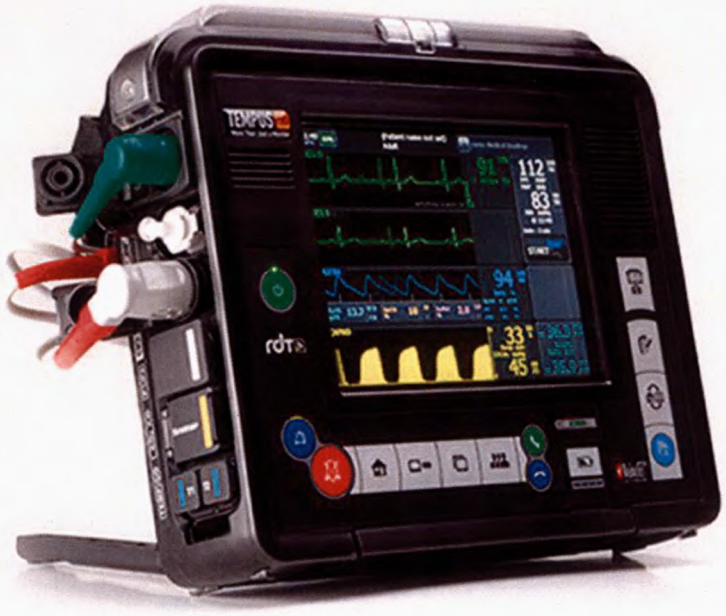

Figure 1.4. 20. Tempus Pro monitoring system

1.4.235. A Tempus Pro was issued to the medics for MAL 3 and recorded as serviceable. However, during the incident an error message appeared, and it failed to work correctly. It was therefore not used by the CMTs or Paramedic. They instead reverted to traditional methods of casualty monitoring to check and record Gdsm Talbot's vital signs. The Tempus Pro was checked on returning to the Ranger Camp and found to be working correctly. The Panel concluded that given the high-pressure situation the CMTs were under and the relative lack of familiarity with the Tempus Pro gave them little confidence in its use. Therefore, the Panel finds that the Tempus Pro failure was an **other factor**. Exhibit 72 Exhibit 73 Witness 3 Witness 6 Witness 10

1.4.236. **Recommendation**. DG DMS should ensure that training competence relating to the Tempus Pro for all DMS personnel is formalised and recorded before all deployments in order to ensure proficiency and confidence in its use.

1.4.237. [redacted] is a clinical intervention where a [redacted]. The CMTs used this intervention and commented that after initial success it failed. The PHEC report makes comment on the failure rate of [redacted][67].The report states that the failure rate of [redacted] is well known[68]. Both CMTs also remarked on the requirement for a more stable and secure decompression needle system as they had noted that at some point during the MEDEVAC the [redacted] by Gdsm Talbot. A second [redacted] Witness 2 Witness 6 Witness 10 Exhibit 10

[67] During the treatment of Gdsm Talbot the CMTs used a [redacted] technique to alleviate the [redacted] to help him breath.

[68] [redacted].

d[redacted] under instruction of the Paramedic whilst CPR was being administered. The PHEC Consultant's report states that DMS are in the process of procuring new devices that are more robust and effective. The new devices were not available to the CMTs or Paramedic during this incident therefore the Panel finds that [redacted] failure was an **aggravating factor**. The Panel also noted that [redacted] is implicated in a significant proportion of trauma related death which was the recorded cause of death for Gdsm Talbot[69].

1.4.238. **Recommendation**. DG DMS should expedite the procurement of a more stable [redacted] system in order to provide Paramedics with a more effective and reliable intervention device[70].

1.4.239. **Tranexamic acid (TXA)** The PHEC Consultant report also comments on the benefits of TXA. TXA is an anti-fibrinolytic that stabilises blood clots that form because of trauma. Exhibit 10 Exhibit 24

1.4.240. In this incident TXA was only available from the qualified Paramedic and was [redacted] route[71]. It is not part of the CMT or Team Medic medical module. However, it should ideally be given as close to the point of injury as possible. A TXA auto-injector is being sourced by DMS so that all soldiers, having completed basic first aid training would be able to deliver TXA during the tactical field care phase. The auto-injector would deliver the drug directly into a muscle so there would be no requirement for IV or IO access. This would be beneficial for future situations of this nature. The Panel finds that the absence of TXA closer to the PoW was an **other factor**. Witness 10

1.4.241. **Recommendation**. DG DMS should provide Tranexamic Acid auto-injectors, for all deployed operations in order to improve tactical field care capability.

Equipment - Rifle.

1.4.242. The Sharpshooter rifle was introduced into UK military service in 2010 to fulfil an urgent operational requirement for UK forces in Afghanistan. Its main function was to engage targets beyond the effective range of the SA80 and it was issued to a limited number of personnel to provide support to patrols who were using the SA80. It is fitted with a 20-round box magazine and a Trijicon Advanced Combat Optical Gunsight (ACOG) 6x48 scope which is ideal for accurate shooting up to 800m. It also has a Trijicon X1 LED and the RMR sight atop the main scope for close quarter engagements. Due to its terminal ballistics the 7.62mm round has a far greater probability of penetrating and stopping a Witness 5 Witness 28

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69 [redacted]

70 This recommendation has been implemented and a new device is in the process of being procured and introduced to service.

71 [redacted]

large charging animal than the standard issue SA80 5.56mm round. The Sharpshooter rifle was selected for the balance between availability, practicality, portability and stopping power as the primary risk on Op CORDED was from a dangerous large animal attack. Figure 1.4.22. shows the L129A1 Sharpshooter rifle with an ACOG 6x48 scope fitted and rugged miniature reflex (RMR) sight on top (highlighted in the red circle).

Figure 1.4. 21. L129A1 Sharpshooter rifle with ACOG and RMR on top

1.4.243. The sighting system on the Sharpshooter rifle is designed for long range accurate engagements so is not as well-suited to the close country that the STTT were experiencing in LNP. However, the addition of the RMR means that it can, if personnel are trained and experienced, be used effectively for close-quarter engagements.

1.4.244. Other large calibre rifles are available within the British military arsenal such as the L115A3, 8.59mm sniper rifle or the AI AX50 12.7mm anti-materiel rifle. Both weapons fire a larger calibre round than the Sharpshooter and would be more effective in neutralising the threat from dangerous large animals. However, they are larger, heavier and not practical for everyday patrolling in this kind of environment. They are commonly used by a trained

sniper pair to engage targets at long range from a static firing position and are not as adaptable to close quarter engagements as the Sharpshooter.

1.4.245. The Sharpshooter is an approved weapon system and is more effective against larger targets than the SA80 due to the larger calibre round it fires. It strikes the balance between practicality and effectiveness against the identified threat. The Panel concluded that the Sharpshooter is the best weapon currently available to UK military for CIWT tasks and therefore finds that the selection of the Sharpshooter was **not a factor** in this incident.

Equipment – Personnel Protective Equipment

1.4.246. **Helmet and Body Armour**. During Op CORDED helmets and body armour were not being worn during patrols. Figure 1.4.22 shows the typical patrol dress and equipment configuration during MAL 3.

Figure 1.4. 22.Typical patrol uniform and equipment for CIWT STTT personnel in Malawi

1.4.247. The likelihood of an attack from small arms weapons was considered very low risk after mitigation was put in place. The primary mitigation was the patrols being armed. Exhibit 38

1.4.248. The APRs were patrolling without helmets and body armour thus, if UK soldiers had been wearing them, the extra weight would have made UK personnel less agile and less effective on joint patrols. There are presentational issues to consider when patrolling in a game reserve frequently visited by tourists. The wearing of helmet and body armour is perceived as being escalatory and not appropriate in this instance. The wearing of body armour and helmets would also increase the likelihood of heat illness in the environmental conditions. The balance of risk was therefore in favour of reducing the more likely risk of heat illness.

1.4.249. The Panel concluded that the decision not to wear helmet and body armour was correct and did not have an impact on the outcome of this incident. However, the Panel is of the view that consideration should be given to carrying these items in the supporting vehicles and used by patrolling personnel if the threat from armed poachers increases. Therefore, the Panel finds that not wearing body armour and helmets was **not a factor.**

Summary of Findings

Causal Factor

1.4.250. The Panel finds that the attack by the unseen elephant was the **causal factor**. 1.4.133

Contributory Factors

1.4.251. The Panel concluded that the absence of confirmation or routine refresher training led the patrol to adopt the incorrect IA for a charging elephant. The Panel finds that the lack of confirmatory training on the correct IA for dangerous large animals was a **contributory factor**. 1.4.130

1.4.252. The Panel concluded that there may be occasions when patrolling in elephant grass is essential but should be avoided where possible. Use of terrain is always factored into patrol planning, however the significant additional risk associated with elephant grass requires special attention. The nature of the terrain and visibility was a central feature of this incident. The Panel concluded that the long grass concealed not only the elephants, but also the commonly observed warning signs issued by an agitated elephant. The Panel finds therefore that the proximity of the patrol to the long grass was a **contributory factor**. 1.4.137

1.4.253. The Panel concluded that the lack of clarity about the ROE and the use of lethal force against dangerous large animals created an unhelpful, dangerous uncertainty which resulted in hesitation and effectively denied Gdsm 1.4.145

Talbot and Soldier A their primary means of self-protection. The Panel finds therefore that uncertainty about the ROE was a **contributory factor**.

Aggravating Factors

1.4.254. Whilst most encounters with dangerous large animals are not fatal, planning for attacks by large dangerous animals should be conducted around the worst credible outcome; the tragic incident with Gdsm Talbot was exactly that. Based on the evidence, the Panel concluded that the residual risk assessment following mitigation measures was an underestimation. The Panel finds that underestimation of the likelihood and impact of an attack by dangerous large animals was an **aggravating factor**. 1.4.43

1.4.255. The OC STTT, the DDH and the ODH were aware that at the time of the incident the African Parks helicopter was not available and that the nearest medical facility capable of DCS was Mwaiwathu Hospital in Blantyre. Noting DMSR's question[72], the Panel concluded that MEDEVAC plan was not adequately resourced. The Panel finds that the absence of a helicopter or a closer, suitable medical facility was an **aggravating factor**. 1.4.54**Error! Reference source not found.**

1.4.256. The Panel concluded that the lack of clarity about the ability to use lethal force against dangerous large animals created an unhelpful, dangerous uncertainty which resulted in hesitation in a time critical incident. The Panel finds therefore that uncertainty about the use of lethal force was an **aggravating factor**. 1.4.145

1.4.257. The Panel concluded that withholding OTFC was the correct decision given the nature of his injuries, the understanding of the contraindications of its use at the time and the absence of a suitable alternative form of pain relief for these common types of battle injuries. The Panel finds therefore that the lack of clear training in the contraindications and an appropriate alternative form of pain relief for use with head and chest injuries was an **aggravating factor**. 1.4.157

1.4.258. In this incident the use of a helicopter would have expedited the extraction of Gdsm Talbot from an emergency HLS that had been identified approximately 500m from the point of wounding. Commercial aviation support cannot be guaranteed to meet MEDEVAC timelines as they will depend on availability and conditions at the time. Therefore, the Panel finds that the non-availability of a helicopter was an **aggravating factor**. 1.4.167

1.4.259. The Panel concluded that the journey time from the AO to LNP main gate and the journey to Mwaiwathu Hospital in Blantyre was underestimated and did not consider important factors which would slow the journey. Therefore, the Panel finds that the absence of a realistic ground MEDEVAC rehearsal was an **aggravating factor**. 1.4.178

[72] Was it realistic for the type of injuries sustained and treatment required to have been foreseen and did the plan provide an effective way of managing these?

1.4.260. If an end-to-end rehearsal, with a simulated casualty had been completed it would have shown that the timeline was unachievable. The Panel therefore concluded that the lack of an end-to-end rehearsal produced inaccurate data. The Panel finds that the inaccurate data used in the CASEVAC calculator was therefore an **aggravating factor**. 1.4.180

1.4.261. The Panel therefore concluded that despite JSP 950 and ACSO 3215 being applied during the planning of the medical timeline the 4-hour part of the 10-1-4 was highly likely to be unachievable in this particular incident, given the severity of the injuries and the MEDEVAC resources available. Given the seriousness of the casualty and the limitations of the Land Rover 130, the Panel finds that not accurately assessing the likelihood of achieving the 4-hour medical timeline was an **aggravating factor**. 1.4.204

1.4.262. The Panel concluded that despite the clinical timelines being within policy(JSP 950 and ACSO 3215) and authorised by the ODH more resource could have been applied to reduce the clinical timelines. This therefore poses the question as to whether the policy that permits medical timelines to be extended rather than applying additional resource to reduce the risk needs to be reviewed. The Panel finds therefore that an extended medical timeline allowing the STTT to operate at extreme risk was an **aggravating factor**. 1.4.207

1.4.263. The Panel finds that the lack of blood products stored forward was an **aggravating factor**. 1.4.220

1.4.264. The Panel concluded that had the '10-1-4' medical timeline been met there was at least a 50-60% probability that Gdsm Talbot could have survived based on the ISS score. The underestimation of the medical timeline and the resources in place to assure it were inadequate. Therefore, the Panel finds that failure to meet the planned 10-1-4 medical timeline was an **aggravating factor**. 1.4.223

1.4.265. [redacted] is a clinical intervention where a [redacted]. The CMTs used this intervention and commented that after initial success it failed. The PHEC report makes comment on the failure rate of [redacted][73].The report states that the failure rate of [redacted] is well known[74]. Both CMTs also remarked on the requirement for a more stable and secure [redacted] system as they had noted that at some point during the MEDEVAC the [redacted] by Gdsm Talbot. The PHEC Consultant's report states that DMS are in the process of procuring new devices that are more robust and effective. The new devices were not available to the CMTs or Paramedic during this incident therefore the Panel finds that [redacted] failure was an **aggravating factor**. The Panel also 1.4.237

[73] During the treatment of Gdsm Talbot the CMTs used a [redacted] technique to alleviate the [redacted] to help him breathe.

[74] [redacted]

noted that [redacted] is implicated in a significant proportion of trauma related death which was the recorded cause of death for Gdsm Talbot[75].

Other Factors

1.4.266. The Panel was provided with evidence that the necessary recces had been done and that SO2 Med in 11 Bde was satisfied that the selected Host Nation hospital's facilities could provide DCS, but this was not captured in Annex B. The Panel concluded that the omission of the recce reports was an oversight during planning but did not have any bearing on the outcome of the incident. However, the Panel finds that the absence of the requisite reports in the med plan was an **other factor**. 1.4.47

1.4.267. The 11 Bde assurance report outlined issues with the SOE including the African Parks helicopter being off line from the 9 April 2019 to the 8 May 2019. Importantly it stressed the importance of carrying out full MEDEVAC rehearsals. Rehearsals can indicate, but not assure MEDEVAC timelines as these will vary depending on conditions and availability at the time. The command decision was made not to conduct a rehearsal with the contingency air ambulance as the benefit of doing so would not have added significant value. However, the Panel concluded that a rehearsal could have proved the concept and provided OC STTT with added confidence to better assess the suitability or not of the air ambulance as a MEDEVAC option. The Panel finds that the lack of a rehearsal with the air ambulance was an **other factor**. 1.4.57

1.4.268. In the Panel's opinion the rope hanging test did not accurately simulate the strength needed to climb a tree[76]. Therefore, the Panel finds that physical fitness was **not a factor** in this incident but that the upper body strength test was inadequate and was an **other factor**. 1.4.81

1.4.269. The Panel found that it was not possible to determine whether reactive Sharpshooter training conducted prior to MAL 3 would have led to a different outcome in this incident. This point is linked to the mindset of the soldiers regarding the rules of engagement (ROE) they were operating under which is examined later. All personnel had reached the required standard of competency to deploy and use the weapon operationally. The Panel concluded that it is likely additional training would increase the level of confidence in the weapon prior to deployment and make its use more instinctive. Therefore, the Panel finds that the use of the Sharpshooter on Op CORDED was an **other factor**. 1.4.89

1.4.270. One of the APRs on the patrol had 4 years' experience as a Ranger in LNP and did not observe any GSA or indicators and warnings, albeit he was the rear man in the patrol. This was corroborated by the other members of the 1.4.102

[75] Prevalence of tension pneumothorax in fatally wounded combat casualties. McPherson JJ; Feigin DS; Bellamy RF. J.Trauma, 2006; 60(30: 673-8.

[76] The panel acknowledges that climbing a tree was not the taught drill for encounters with elephants. It was the taught drill for encounters with other dangerous large animals.

patrol. The Panel concluded therefore that it is highly probable that there were no indicators or warnings of an imminent attack. Therefore, the Panel finds that the lack of experience and training in animal tracking is an **other factor**.

1.4.271. The Panel concluded that the success of the initial CASEVAC from the point of wounding to the RV with the CMT was solely down to Soldier A's experience, excellent leadership and personal strength as well as the availability of three APRs. The Panel finds therefore that patrol size and constitution was an **other factor**. 1.4.111

1.4.272. The Panel concluded that whilst SOPs were known, taught and briefed they had not, until after the incident, been written down and formally approved for use. As this was the third iteration of the deployment this should have been done. The Panel finds that the lack of written SOPs was an **other factor**. 1.4.115

1.4.273. Given the lack of indicators previously examined, coupled with the very short reaction time it is unlikely that an inexperienced person would have been able to bring their weapon to bear in time. Once Soldier A had extracted himself from the threat and was up a tree, he was unable to use his weapon as he was hanging with one hand and his view of Gdsm Talbot was obscured. The Panel finds that the short-range engagement resulting in reduced reaction time was an **other factor**. 1.4.149

1.4.274. The Panel concluded that based on the information and assets available to OC STTT, his decision making was logical and justified. The lack of a rehearsal with the air ambulance meant that OC STTT had not been able to test the solution to ascertain whether the reality was quicker than the estimate. The Panel finds that not conducting a rehearsal with the air ambulance was an **other factor**. 1.4.172

1.4.275. On the day of the incident the team assigned to one day patrols had not gone out which enabled spare personnel to be called upon to provide support. The deployed patrols were mutually supporting, and each team had a CMT and Platoon Sergeant in a support vehicle, however they were not officially nominated as a QRF nor was reinforcement of another team rehearsed. The Panel concluded that the lack of a dedicated QRF did not impact on the MEDEVAC and treatment received by Gdsm Talbot in this instance. However, had the team on day patrols been out of camp there would have been limited personnel available to assist with this or any other kind of serious incident such as a prolonged contact with poachers. Therefore, the Panel finds that the absence of a dedicated QRF was an **other factor**. 1.4.184

1.4.276. There was no routine established for the provision of a duty driver. Drivers were allocated as required depending on who was in camp at the time. A duty driver is an individual whose primary task for the day is to drive a dedicated vehicle. On the day of the incident there were enough qualified drivers therefore, this did not impact on the MEDEVAC, but a duty driver was not allocated. Therefore, the Panel finds that the lack of an appointed duty driver was an **other factor**. 1.4.186

1.4.277. The STTT CSM produced a comprehensive set of standing instructions which governed amongst other things the routine for patrol preparation, equipment care, discipline, dress regulations, security and discipline. However, the Panel found no evidence of a formalised watch routine and did not find any daily routine orders (DROs). On the day of the incident the Ops Offr was running the operations room. The Panel concluded that this did not impact on the MEDEVAC of Gdsm Talbot. However, it is acknowledged as good military practice to have a written watch rota published on DROs, so that at any one time there is an accountable point of contact present to provide direction and guidance to the deployed troops. Therefore, the Panel finds that the lack of a formalised and promulgated duty rota in the operations room was an **other factor**. 1.4.188

1.4.278. During the incident the use of the SAT Phone to provide reach-back to the GDMO was unreliable. The Paramedic resorted to using his own mobile phone which worked more reliably. The Panel finds that the poor SAT Phone reliability was an **other factor**. 1.4.192

1.4.279. The Panel concluded that the availability of life saving medical equipment was just[77] adequate for the care administered. Therefore, it finds that the supply of life saving medical equipment was an **other factor**. 1.4.214

1.4.280. A Tempus Pro was issued to the medics for MAL 3 and recorded as serviceable. However, during the incident an error message appeared, and it failed to work correctly. It was therefore not used by the CMTs or Paramedic. They instead reverted to traditional methods of casualty monitoring to check and record Gdsm Talbot's vital signs. The Tempus Pro was checked on returning to the Ranger Camp and found to be working correctly. The Panel concluded that given the high-pressure situation the CMTs were under and the relative lack of familiarity with the Tempus Pro gave them little confidence in its use. Therefore, the Panel finds that the Tempus Pro failure was an **other factor**. 1.4.235

1.4.281. In this incident TXA was only available from the qualified Paramedic and was [redacted][78]. It is not part of the CMT or Team Medic medical module. However, it should ideally be given as close to the point of injury as possible. A TXA auto-injector is being sourced by DMS so that all soldiers, having completed basic first aid training would be able to deliver TXA during the tactical field care phase. The auto-injector would deliver the drug directly into a muscle so there would be no requirement for IV or IO access. This would be beneficial for future situations of this nature. The Panel finds that the absence of TXA closer to the PoW was an **other factor**. 1.4.240

[77] 'Just adequate' is indicative of the fact that oxygen had to be rationed and that two medical modules held by two CMTs were exhausted and the Paramedic's module was also significantly utilised. NB: one medical module should be adequate to sustain one casualty.

[78] [redacted]

PART 1.5

Recommendations

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PART 1.5 – RECOMMENDATIONS

1.5.1. **Introduction**. The following recommendations are made in order to enhance safety for future STTTs:

1.5.2. **MOD (Secretary of Policy and Operations) and DCDS (MSO):**

a. MOD (Secretary of Policy and Operations) and DCDS (MSO) should revise the Deputy Chief of Defence Staff (DCDS) Directive in order to clarify use of lethal force and include the use of warning shots for Counter Illegal Wildlife Trade Short Term Training Team soldiers[79].	1.4.140 to 1.4 146

1.5.3. **Deputy Chief of the General Staff:**

a. Deputy Chief of the General Staff should, through the Senior Health Advisor (Army) (SHA(A) conduct a thorough review of the policy dictating medical timelines for all Short-Term Training Tasks[80].	1.4.206 to 1.4.208

1.5.4. **CFA:**

a. CFA should ensure that Short Term Training Teams in austere and remote environments are sufficiently resourced to allow a full rehearsal of all aspects of the med plan before operations begin in order to validate the casualty evacuation timeline[81].	1.4.55 to 1.4.58

1.5.5. **GOC 1 (UK) Div:**

a. GOC 1 (UK) Div should direct that copies of the host nation hospital recce reports are included in the appropriate annex of the medical plan in order to provide documented assurance of their suitability for use by UK military personnel.	1.4.45 to 1.4.58
b. GOC 1 (UK) Div should direct that a more suitable, mission specific operational fitness test is implemented. The test must assure the relevant component of fitness (strength) is developed to climb a tree. This should	1.4.80 to 1.4.82

[79] Following the incident this recommendation was directed by MOD and implemented by GOC 1 (UK) Div. The Op CORDED directive now states that: '[redacted]

[80] NB: ACSO 3215 is already the subject of a separate Army review due to be published in Jan 2021.

[81] This recommendation has now been actioned by CFA and 1 (UK) Div.

be introduced during PDT to ensure all Counter Illegal Wildlife Trade Short Term Training Team personnel can achieve the required standard[82].	
c. GOC 1 (UK) Div should direct that Sharpshooter training, using the Dismounted Close Combat Trainer,[83] where appropriate and if time permits, in the training of Counter-Illegal Wildlife Trade Short Term Training Teams in order to improve proficiency with their weapon system.	1.4.86 to 1.4.90
d. GOC 1(UK) Div should ensure that Counter Illegal Wildlife Trade Short Term Training Teams receive enhanced training in understanding the environment and tracking / Ground Sign Awareness in order to reduce the risk of surprise attacks by dangerous large animals[84].	1.4.100 to 1.4.103
e. GOC 1 (UK) Div direct that the Counter Illegal Wildlife Trade Short Term Training Team soldiers are trained in identifying the risk presented by the various environments in which they are being tasked to patrol.	1.4.134 to 1.4.139
f. GOC 1 (UK) Div should ensure that use of force training is conducted as part of PDT, and regularly refreshed in order to ensure that soldiers involved in Counter Illegal Wildlife Trade tasks fully understand the guidance provided on opening fire as a last resort to protect life[85].	1.4.140 to 1.4.147
g. GOC 1 (UK) Div should direct that reactive shooting, with the Sharpshooter is incorporated into all Counter Illegal Wildlife Trade Short Term Training Team PDT, in order to maximise familiarity with the weapon in this environment[86].	1.4.148 to 1.4.150
h. GOC 1 (UK) Div should direct that during the operational planning and estimate phase, ground and air medical evacuation timelines should be verified and recorded in an appropriate risk matrix, with clear delineation of risk levels and risk ownership. Risk to achievement of medical timelines should be held at the appropriate level and the process for the dynamic transfer of risk through the Duty Holding chain should be	1.4.162 to 1.4.168

[82] 1 (UK) Div have ensured that the start standard and PDT for Op CORDED will include elements from the Soldier Conditioning Review (SCR) to ensure that upper body strength is suitable for climbing trees for those who conduct partnered patrols.

[83] The Infantry Battle School (IBS) has confirmed it does have Sharpshooter on three DCCT(E) systems. DCCT judgemental scenarios can be used with the Sharpshooter but only using the Rugged Miniature Reflex (RMR) sight and not the main sight. Completion of the associated shoots requires approximately 2 hours per 2 firers.

[84] As part of the Army's own internal inquiry this recommendation has already been factored in and regular refresher training and enhanced GSA training is part of the routine training programme for CIWT STTTs. Where possible those soldiers participating in patrols will also attend a bespoke 3-week Op CORDED Cadre consisting of a 2-week Basic Trackers' course and wildlife specific familiarisation training in country with a world class SME.

[85] This recommendation has already been actioned by GOC 1 (UK) Div and 11 Bde and ROE refresher training is included as part of the in-theatre training programme.

[86] This recommendation has been implemented by GOC 1 (UK) Div and 11 Bde. Reactive shooting from the Close Quarter Marksmanship Operational Service Pamphlet have been adopted for Op CORDED PDT. This includes a warning shot shoot.

agreed and tested prior to the deployment in order to ensure that either appropriate resource or operational constraint is applied in mitigation.	
i. GOC 1 (UK) Div should direct that the medical plan for all short term Training teams is thoroughly rehearsed in order to prove the plan and provide confidence to the deployed commanders.	1.4.169 to 1.4.172
j. GOC 1 (UK) Div should direct that realistic CASEVAC/MEDEVAC rehearsals are conducted in order to obtain accurate journey times and validate the CASEVAC/MEDEVAC plan for Short Term Training Teams[87].	1.4.179 to 1.4.181
k. GOC 1 (UK) should direct that Counter Illegal Wildlife Trade Short Term Training Teams maintain nominated mutually supporting assets in order to mitigate the host nation deployed personnel limitations and provide options to commanders when dealing with incidents. These options should be thoroughly rehearsed during RSOI.	1.4.183 to 1.4.185
l. GOC 1 (UK) Div should direct that reliable communications equipment is provided in order to provide an effective and timely UK reach back facility.	1.4.190 to 1.4.193
m. GOC 1 (UK) Div should ensure that enough resource is provided to enable Short Term Training Tasks to operate within a meaningful and robust SOE.	1.4.198 to 1.4.205
n. GOC 1 (UK) Div should direct that medical supplies are provided to Short Term Training Tasks to enable complex injuries to be managed over a prolonged period.	1.4.211 to 1.4.215
1.5.6. **DG DMS:**	
a. DG DMS should provide pain relief alternatives for use with head and chest injuries and develop training in their use. DG DMS should also clarify the contraindications for the use of OTFC in order that soldiers with head or chest injuries can receive battlefield pain relief using the current in-service OTFC.	1.4.155 to 1.4.158
b. DG DMS should provide the capability to have appropriate long-life blood products available for Short Term Training Team tasks in order to improve the treatment of seriously injured casualties[88].	1.4 216 to 1.4.220

[87] This recommendation has been implemented. 1 (UK) Div Operation Order 19-001 directs *"At a minimum, all personnel are to participate in a medical plan rehearsal of concept exercise. Full, physical, end to end, day/night rehearsals are to be directed by the DDH/ODH for specific aspects of the medical plan, where they deem appropriate and practicable. Rehearsal requirements will be specified in Div operational service writing* [orders]"

[88] DG DMS stated that this will require CMT protocols to change in order to allow a CMT or Paramedic to account for and administer alternative analgesia and blood products.

c. DG DMS should ensure that training competence relating to the Tempus Pro for all DMS personnel is formalised and recorded before all deployments in order to ensure proficiency and confidence in its use	1.4.234 to 1.4.235
d. DG DMS should expedite the procurement of a more stable [redacted] system in order to provide Paramedics with a more effective and reliable intervention device[89].	1.4.137
e. DG DMS should provide Tranexamic Acid auto-injectors, for all deployed operations in order to improve tactical field care capability.	1.4.239 to 1.4.240
1.5.7. **11 Bde:**	
a. Commander 11 Bde should direct that the risk assessment for an attack by large dangerous animals is updated before the next Counter Illegal Wildlife Trade Short Term Training Team in order to ensure that the residual risk is held at the appropriate level[90].	1.4.40 to 1.4.44
b. Commander 11 Bde should ensure that Counter Illegal Wildlife Trade Short Term Training Team patrols are a minimum of sixpeople, rather than four, of whom at least 2 of those personnel should be UK soldiers in order to allow for mutual support, buddy-buddy drills and treatment and evacuation of casualties[91].	1.4.108 to 1.4.112
c. Commander 11 Bde should direct that appropriate SOPs are developed which include all immediate action drills in order to ensure best practice is standardised[92].	1.4.113 to 1.4.116
d. Commander 11 Bde should direct that regular refresher training is programmed and recorded in order to mitigate the inherent lack of experience and prevent skill-fade for Counter Illegal Wildlife Trade Short Term Training Teams[93].	1.4.126 to 1.4.131

[89] This recommendation has been implemented and a new device is in the process of being procured and introduced to service.

[90] Following the incident, 11 Bde actioned this recommendation and reviewed the risk analysis and concluded that the impact of such an attack was critical.

[91] This recommendation has already been implemented by 11 Bde and adopted for the remainder of MAL 3 and on MAL 4. 11 Bde Return to Patrolling CONOPS brief refers to 6-person patrols with a minimum of 2 UK personnel. The memorandum of understanding between the UK and the host nations in which the UK CIWT STTTs are operating caps the number of UK personnel in-theatre to thirty. This puts a significant constraint on how manpower can be allocated and employed. Therefore, it makes operational sense to increase the number of APRs in a patrol to achieve the desired effect of increasing redundancy and the ability to extract a casualty.

[92] 11 Bde have already implemented this recommendation, SOPs have been formalised and are republished before each deployment as they are kept under constant review.

[93]11 Bde took immediate action to rectify this shortfall in training. MAL 3 personnel were given immediate refresher training prior to returning to patrols. This was outlined in the return to patrolling CONOPS produced by 11 Bde shortly after the incident in order to continue with the mission. The training was delivered in conjunction with APRs to ensure coherence with AP SOPs. The training was designed to ensure that all MAL 3 personnel understand the characteristics of specific dangerous animals and the principles of the appropriate response. This training was recorded in the deployment passport and fortnightly refresher training conducted. Exhibit 7 refers.

e. Commander 11 Bde should implement the production of a dangerous animals aide memoire and crib card in order ensure individuals on Counter Illegal Wildlife Trade (CIWT) Short Term Training Teams can conduct refresher training. This should be given to every UK military person deploying on CIWT tasks[94].	1.4.126 to 1.4.132
f. Commander 11 Bde should ensure SOPs direct Counter Illegal Wildlife Trade Short Term Training Team patrols to keep away from elephant grass where possible in order to reduce the risk of attack by concealed elephants[95].	1.4.134 to 1.4.138
g. Commander 11 Bde should direct that all Short-Term Training Teams hold a dedicated duty driver as part of the daily routine in order to ensure key personnel such as the paramedic or OC STTT have a dedicated driver available in case of emergency[96].	1.4.186 to 1.4.187
h. Commander 11 Bde should direct that all Sort Term Training Tasks run a duty officer roster, published on daily routine orders, in order to ensure that robust C2 is always available[97].	1.4.188 to 1.4.189

[94] 11 Bde have acted on this recommendation and have produced a dangerous animals aide memoir and crib card which has been distributed to all Op CORDED STTT personnel.

[95] This recommendation has already been implemented by 11 Bde. SOPs dictate that elephant grass is avoided and circumnavigated at all costs, unless in an emergency. PDT covers the ground and vegetation likely to be encountered in the area of operations. Patrol planning factors training will be repeated as part of RSOI.

[96] This has now been implemented by 11 Bde and a dedicated duty driver is appointed daily.

[97] This has now been implemented by 11 Bde and a dedicated duty officer will be appointed to provide 24/7 cover.

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PART 1.6

Convening Authority Comments

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PART 1.6 – CONVENING AUTHORITY COMMENTS

Introduction

1.6.1 I convened the Service Inquiry (SI) on 23 May 2019 to investigate the tragic death of Guardsman (GDSM) Mathew Talbot whilst deployed as part of an Army Short Term Training Team (STTT) in Malawi. He died on 5 May 2019 as a result of injuries sustained when he was charged by a wild elephant whilst conducting a Counter Illegal Wildlife Trade (CIWT) patrol in Liwonde National Park (LNP) in Malawi. Under the operational name of Operation CORDED this was the third iteration of a UK Defence deployment to assist countries such as Malawi, Zambia and Botswana counter the illegal wildlife trade by developing and supporting African Park Rangers (APRs).

1.6.2 The SI Panel have submitted their report to me following 12 months of detailed evidence gathering, interviews and analysis. Having reviewed the report I offer the following key observations:

Duty Holding, Planning and Command and Control

1.6.3 It is abundantly clear that the risk management, planning and command and control of this operation was subjected to a great deal of rigour and scrutiny by the Army. Specifically the 1st (United Kingdom) Division (1 (UK) Div) and the 11th Infantry Brigade (11 Inf Bde).

1.6.4 The Duty Holding system was applied, meaning that Risk to Life (RtL) could be managed at the appropriate level. At the tactical level this was done by the Commanding Officer (CO) of the 1st Battalion the Coldstream Guards (1 COLDM GDS), represented in Malawi by the Officer Commanding the STTT. Oversight to CO 1 COLDM GDS was provided at the One-Star level by the Commander of 11 Inf Bde. In turn the Operational Duty Holder (ODH) was the General Officer Commanding (GOC) of 1 (UK) Div at Two-Star level. Ultimately, the responsibility for risk was held at this level. The GOC is accountable to the Senior Duty Holder (SDH), in this case the head of the Army, the Chief of the General Staff (CGS). CGS is accountable to the Secretary of State for Defence. This model was followed precisely during Op CORDED.

1.6.5 The SI Panel observed that all planning had been conducted within Joint Services and Army Command policy and that orders had been correctly issued at every level.

1.6.6 The Command and Control (C2) structure in theatre was more than adequate for a deployment of this size and nature. The support provided to the deployed force by the higher headquarters, through reachback to the UK, was also effective. Routine assurance visits were conducted by CO 1 COLDM GDS and Commander 11 Inf Bde, who reported to GOC 1 (UK) Div that conditions had been met to proceed with the deployment.

Preparing the Force

1.6.7 The Pre-Deployment Training (PDT) and the in-theatre Reception Staging and Onward Integration (RSOI) training received by the soldiers was fit for purpose. However, the Panel has made recommendations to enhance this training further such as conducting reactive shooting practice with the Sharpshooter rifle, bushcraft and tracker training and routine refresher training on the appropriate use of force and on Standard Operating Procedures (SOPs), including Immediate Action (IA) drills. Many of these

recommendations have already been implemented by 1 (UK) Div in order to further develop the preparedness of the force. This includes an amendment to the permitted use of force by CIWT patrols who now have the authority to use warning shots in a CIWT environment in order to scare large animals and deter the threat, should the immediate threat not require an instantaneous use of lethal force.

Medical Care

1.6.8 The level of care provided to GDSM Talbot by the medical team on the ground was exemplary under the circumstances. The Patrol Commander, the two Combat Medical Technicians and the Paramedic should be commended for their valiant efforts in trying to save the life of GDSM Talbot. It is clear that their individual training, determination, leadership and professionalism gave GDSM Talbot a fighting chance of survival under extremely challenging conditions. The additional medical oversight provided by reachback to the UK in the form of an on-call General Duties Medical Officer provided an extra layer of assurance in the medical chain.

Medical Timeline

1.6.9 The medical timeline of 10-1-4 being used during Op CORDED MAL 3 was planned using Army Command Standing Order (ACSO) 3215 and Joint Services Publication 950. This timeline was assessed by the Competent Medical Authority (CMA) as operating at high to extreme risk due to the requirement for Prolonged Field Care (PFC) before a casualty arrived at a recognised Damage Control Surgery (DCS) facility. The primary means of Medical Evacuation (MEDEVAC) was a vehicle move. The vehicle in use at the time was a Land Rover 130 adapted to take a stretcher and oxygen bottles, which was inadequate for the provision of PFC on the move.

1.6.10 The MEDEVAC rehearsals conducted as part of RSOI had not taken into consideration the worst case scenario casualty realised during this incident, including: treatment times, the requirement to stop to provide a stable platform for treatment; handover times between Team Medic and CMT, then CMT and Paramedic; and the possibility of driving at night or in adverse weather conditions. When considering all of these factors the Panel concluded that, with respect to the 10-1-4 medical timeline, the 10 minutes to Tactical Field Care (TFC) and the 1-hour to Enhanced Field Care (EFC) deadlines were achievable and provisioned for, but the 4-hour deadline for reaching DCS was not. This was primarily due to the remote location and the limitations of the vehicle. On 5 July 2019 I issued Urgent Safety Advice to the Deputy Chief of the General Staff (DCGS) recommending that a review of the assumptions which under-pinned the medical timeline was conducted. Shortly after the incident a bespoke Toyota Land Cruiser ambulance arrived in theatre which provided a far more capable and better equipped MEDEVAC platform for the STTT to use.

Helicopter MEDEVAC

1.6.11 At the time of the incident the African Park's helicopter was unavailable as it had been tasked for operations in Zambia. This was a known factor and had been planned for by the OC of the STTT and the Chain of Command. At the time, there was sufficient confidence in the ground MEDEVAC option, given that partial rehearsals had been conducted and the medical timeline assured. A helicopter would have provided a quicker method of MEDEVAC especially considering the proximity of an emergency helicopter landing site close to the point of wounding; however, the African Parks helicopter would not

have provided a suitable platform for effective in-flight medical care. Given the extent of GDSM Talbot's injuries there is still no certainty that he would have survived, even with a quicker transit to hospital. The report provided by the expert in Pre-Hospital Emergency Care stated that whilst there was "…no single injury that could not have been treated if the patient had been rapidly conveyed to hospital," he had suffered a "catalogue of injuries" and had a 50-60% chance of survival. The use of a helicopter may not have changed the outcome but would have increased his chances of reaching hospital before he died.

Conclusion

1.6.12 Having reviewed the report in its entirety, I am content that this tragic incident has been investigated, analysed and reported on thoroughly, accurately and rigorously. I am assured that the recommendations contained within it have been or will be implemented where feasibly possible in order to reduce the likelihood of a similar outcome in the future.

1.6.13 On behalf of the Defence Safety Authority, I offer my sincere condolences to GDSM Talbot's family, friends and loved ones.

DG DSA

