

DDAS Accident Report

Accident details

Report date: 15/03/2004	Accident number: 401
Accident time: 14:45	Accident Date: 04/05/2001
Where it occurred: Nr Cafa Prushit border crossing	Country: Kosovo
Primary cause: Inadequate training (?)	Secondary cause: Management/control inadequacy (?)
Class: Missed-mine accident (survey)	Date of main report: 05/06/2001
ID original source: Bol: 003/2001: TKG	Name of source: KMACC
Organisation: Name removed	
Mine/device: PMA-3 AP blast	Ground condition: bushes/scrub leaf litter woodland
Date record created: 05/03/2004	Date last modified: 05/03/2004
No of victims: 2	No of documents: 2

Map details

Longitude:	Latitude:
Alt. coord. system: GR: 34T DM 5014 8297	Coordinates fixed by: GPS
Map east: 5014	Map north: 8297
Map scale: Junik	Map series: M709
Map edition: 3-DMA	Map sheet: 3079-1
Map name: 1:50,000	

Accident Notes

inadequate equipment (?)
inadequate training (?)
metal-detector not used (?)

Accident report

What follows is the original Board of Inquiry report, edited for anonymity and with excess pictures removed.

REPORT FOR ACCIDENT INVESTIGATION BOARD OF INQUIRY – No 003/2001

Mine Accident that occurred in MNB West on Friday 4 May 2001 in which [Demining group] Operations Manager Mr [Demining group Ops manager] and Local Lad [Albanian adolescent] from Letaj Village (Albania) were both injured.

Introduction

1. In accordance with the Mine Action Co-ordination Center (MACC) Standard Working Procedure No 4, the MACC Programme Manager issued a Convening Order on Friday 4 May 2001 for an Accident Investigation Board of Inquiry. Annex A details the Convening Order.
2. This is a comprehensive report by the Board of Inquiry into the mine accident that occurred on Friday 4 May 2001. Based on the investigation, interviews, statements from [Demining group] personnel involved in the accident (see Annex B), visits and photos of the accident site, this accident is considered to be preventable.
3. This finding is based on the fact that the accident was due to [Demining group Ops manager] following a local guide into a suspect area. The guide was the first to step on a mine followed closely by [Demining group Ops manager] as he took a step to assist. Both mines were PMA 3 anti-personal (AP) blast mines. According to the Vojska Jugoslavije (VJ) records these minefields should only have contained PMR 2A fragmentation mines, and made no mention at all of blast mines. At the time of the accident [Demining group Ops manager] had all available information from IMSMA in the form of the VJ minefield records.
4. The accident occurred at GR 34T DM 5014 8297 which is approximately 1.5km to the south east of the Cafa Prushit border crossing point between Albania and Kosovo at 1455 hours on Friday 4 May 2001. According to the maps the accident site is 50m inside the Albanian side of the border, although according to the VJ minefield records this area is inside Kosovo.

Events leading up to the Accident

5. [Demining group] has three seven-man clearance teams conducting operations in the vicinity of Cafa Prushit. These are B1, B2, and B4. The accident occurred approximately 300 meters to the south of team B2 clearance site. On the day of the accident Mr [Demining group Ops manager] the Operations Manager for [Demining group] was endeavoring to confirm the location of VJ minefields in this vicinity. He was last seen approximately 20 minutes before the accident by the Team Leader (TL) of B2 Mr [name excised] at his site.
6. After leaving B2 site, [Demining group Ops manager] proceeded down the track toward the main Control Point (CP). When he got to the intersection that leads down to the CP he met up with the local lad [Albanian adolescent]. [This person] is 16 years old and he lives in the village of Letaj, which is on the Albania side of the border very close to the accident site.
7. [The Albanian adolescent] was sitting at the track intersection when [Demining group Ops manager] met up with him. [The Albanian adolescent] offered to take [Demining group Ops manager] and show him the location of a mined area that he knew of. Whilst following the lad, [Demining group Ops manager] has stated that he had doubts of the area they were walking through. He told [the Albanian adolescent] to stop, however [the Albanian adolescent] was so confident with where he was going that [Demining group Ops manager] relented and they continued. They came to a point where [the Albanian

adolescent] was searching the ground, and it was then that [Demining group Ops manager] realised they were in a minefield. He told [the Albanian adolescent] to stop and that they would go back. Almost immediately after this [the Albanian adolescent] stood on a mine. [Demining group Ops manager] took a step forward to assist him, and it was then that he also stood on a mine. It was only a matter of seconds between each explosion. [The Albanian adolescent] got up and was hopping around on one leg. They had both received injuries to their left feet. [Demining group Ops manager] told [the Albanian adolescent] to not move about, as there was the obvious possibility that he may set off another mine.

8. [Demining group Ops manager] called the TL of B2 on his radio and informed him of the mine strikes. He then guided the lad out of the immediate area and awaited the arrival of B2. B2 had just completed operations for the day and were making their way down the track toward the junction. The area is heavily vegetated with bushes and trees and therefore they were unable to see the accident site from their location. The TL of B2 immediately called by radio to the TL of B1, which was the nearest team to their site, approximately 1km away and informed him of the accident. He requested that B1 make their way to his site, and he then called the [Demining group] base and informed them of the accident. The family of [the Albanian adolescent] whose village of Letaj is very near the site also heard the two explosions and they made their way to the accident site. As it turned out the local villagers and the team of B2 arrived at the accident site at the same time. The team of B2 cleared an expedient safe lane up to the two casualties and extracted them both to a safe area. The villagers wanted to take [the Albanian adolescent] immediately to hospital, but the medic of B2 prevented them from doing this until he had treated him. The family were very impatient to take [the Albanian adolescent] and therefore the medic was only able to apply bandages to him before the family carried him down the hill toward the main CP. The medic then began treatment to [Demining group Ops manager] by applying dressings to the wound, administering an IV and giving pain relief. Once he had given the initial first aid, they then carried [Demining group Ops manager] by stretcher down the hill to Helicopter Landing Site (HLS) Red – 7 (approximately 700 meters away) which is located next to their main CP.
9. As the team of B2 were carrying [Demining group Ops manager] down the hill the team of B1 arrived coming up the track. They then took it in turns to carry [Demining group Ops manager]. It took approximately 25 minutes to get [Demining group Ops manager] down the hill to the HLS. Mr [name excised] the Handicap International (HI) medical co-ordinator who had been sent to the HLS by his programme manager was waiting there for them when they arrived. Further treatment was given to [Demining group Ops manager] whilst waiting for the helicopter, which arrived 20 minutes later at 1549 hours.
10. The villagers had made their way down the hill to the main CP, but because they had taken another track the team of B1 did not see them, and as it turns out they had passed each other on the hill. When the villagers arrived at the main CP they spoke to the [Demining group] ambulance driver who is a local employee of [the Demining group] and got him to take them to the civilian hospital in Gjakova (approximately 17km away).
11. [Demining group Ops manager] was evacuated by helicopter to the Italian KFOR Hospital in Peja and was accompanied by the TL of B1 and the medic of B2. He was operated on and had his left foot amputated by the Italian doctors. As [the Albanian adolescent] was taken to Gjakova civilian hospital by his family he was operated on there. He has had four toes of his left foot amputated.
12. A safe lane was cleared to the seat of the two uncontrolled explosions and a 25m² box was cleared around the explosions in order that photographs could be taken and further investigation of the site made. An armed PMA 3 was located 2m before the seat of the two explosions. This mine was surface laid, however was covered over with grass and leaves at the time it was discovered. Therefore both [the Albanian adolescent] and [Demining group Ops manager] walked past this mine before they stood on their mines. They would have then had to come back past this same mine again when they extracted themselves from the area. There was no further evidence of mines found.
- 13.

VIEW OF THE INCIDENT SITE, LOOKING NORTH FROM THE SAFE AREA



[The third PMA-3 as it was found (above ground).]



Work History of the Casualty

14. Mr. [Demining group Ops manager] has been working for [Demining group] as the Operations Manager in Kosovo since July 1999. Before this he has been with [Demining group] in Mozambique and Somaliland since February 1994 in varying appointments from deminer up to his present appointment as Operations Manager. He has been a demining team leader, demining instructor and a Level Two Survey Team Leader. [Demining group Ops manager] has a wealth of experience and knowledge, and is very well respected within the Kosovo demining community.

Past History of the Area

15. The accident site is approximately 100m to the west of minefield number 396 that is part of task dossier number W02-63. This task dossier contains five minefields all in close proximity to each other. This area is on the Kosovo-Albanian border and was subsequently heavily mined by the VJ Army to deny access from Albania.

Sequence, Documentation and Procedure of Tasking

16. The task dossier No W02-63 was issued to [Demining group] on 19 April 2001. Teams B2 and B1 commenced clearance at their respective sites on 1 May 2001. There have been no reports of any previous accidents in this area.

Geography and Weather

17. The area in general is the Kosovo – Albanian Border approximately 1.5 km from the Cafa Prushit border crossing post. There is a hill range that divides the two countries, with the border generally running along the middle of the main ridgeline. The hill range is heavily vegetated with bushes and trees, and is interspersed with patches of clear grassy areas. There are a number of tracks that are well traveled and others that are overgrown and not used in this vicinity. The accident site is located 100m to the west of minefield number

396 of Task Dossier W02-63. The area of the accident is on the southern side of a hill and in among bushes and trees. It is a distance of approximately 700m from the accident site down the hill along the access track to HLS Red-07, that is located next to the [Demining group] main CP. Access to the main CP is via a gravel road from the direction of Gjakova that is 17km to the north. The weather at the time of the accident was fine with a temperature of approximately 20 degrees celsius.

Site Layout and Marking

18. As this accident occurred outside an operational minefield there were no minefield markings at the time of the accident. The minefield marking in the photographs are those from the access lane and the 25m² box that was cleared in order to conduct the investigation.

Management Supervision and Discipline

19. [Demining group Ops manager] as the [Demining group] Operations Manager is responsible for the management of [Demining group] clearance operations. He is in effect the second in command for [Demining group] Kosovo.

Quality Assurance and Quality Control

20. [Demining group] Quality Control is achieved through a system of on-site checks by the Team Leaders to ensure adherence to the mineclearance SOP's. The MACC QA teams conduct external Quality Assurance on a regular basis, normally each site is visited a minimum of once per week.

Communications and Reporting

21. At the time of the accident there was effective communication by VHF hand-held Motorola radios between [Demining group Ops manager] and the TL of B2 on their internal net. There was further communication by hand-held VHF radios from B2 to the other [Demining group] clearance teams in the vicinity, and [Demining group] HQ situated in Gjakova. The Italian KFOR callsign 'kilo foxtrot' in MNB (W) were contacted on the MNB (W) channel 4 by callsign 51 (NPA). This was after callsign 56A ([Demining group] Programme Manager) had endeavored to contact kilo foxtrot but could not do so, so requested that 51 try to contact them to report the accident. The Italian radio operator was not proficient with English and there was initial confusion between him and the radio operator for NPA. There was a delay in getting the helicopter airborne and to the HLS site as the Italian KFOR were reluctant to send it without confirmation of the injuries to the casualty. KFOR were continually asking [Demining group] for confirmation of the injuries, but they were unable to give this. It was not until the MACC Liaison Officer for MNB (W) spoke by radio to one of the Italian KFOR Operations Officers in French that the helicopter was finally dispatched. He stated to kilo foxtrot that as a helo casevac has been requested, then they should dispatch it immediately. This was now almost 40 minutes after the accident occurred. The confirmation of the injuries from [Demining group] to kilo foxtrot was not passed until the helicopter had landed at the HLS, 55 minutes after the accident occurred. Fortunately the injuries [Demining group Ops manager] received were not life threatening, however the consequences may have been fatal had the injuries been of a more serious nature.
22. Communications between [Demining group] base location in Gjakova and MNB (W) KFOR callsign kilo foxtrot is maintained via the VHF system on Channel 4, which is the MNB (W) channel.

Medical Details

23. [Demining group Ops manager] has had his left foot amputated and [Albanian adolescent] has lost four toes of his left foot.

24. Annex G details the medical report from the MACC QA Medical Officer and the Appendices to the Annex detail the two hospital reports from Italian KFOR Hospital and the Gjakova Hospital.

Personnel

24. A list of personnel and their duties is detailed at Annex B. Written statements from [Demining group] personnel involved in the accident form the Appendices to this Annex.

Dress and Personal Protective Equipment (PPE)

25. At the time of the accident [Demining group Ops manager] was not wearing protective equipment. This however had no bearing on the injury he received.

Tools and Equipment

26. [Demining group Ops manager] was not using any tools at the time of the accident.

Details of Mine Involved

27. [Large picture removed.]

Account of Activities

28. The following is a description of the events before and after the accident. The information from the investigation forms the basis of the description of events:

4 May 2001

- 1435hrs (approx) – [Demining group Ops manager] departs B2 team site and meets up with local lad [the Albanian adolescent] at the track intersection. [The Albanian adolescent] offers to show [Demining group Ops manager] the location of mines.
- 1455hrs – [The Albanian adolescent] and [Demining group Ops manager] stand on mines.
- 1455hrs – The TL of B2 ([name excised]) calls [Demining group Ops manager] on the radio and confirms that they have both stood on mines and have been injured. TL of B2 calls B1 and callsign 56 ([Demining group] base) and informs them of the situation then takes his team to the accident site to effect the casevac.
- 1458hrs – B2 arrive at the accident site and commence the extraction of casualties to the safe area. The team leader of B2 calls 56 and gives details of injured. The team medic of B2 [name excised] then administers first aid to [the Albanian adolescent] and then his family carries him down the hill to the main CP.
- 1500 – 1505hrs - The medic administers first aid to [Demining group Ops manager] in the safe area.
- 1505 – 1530hrs – [Demining group Ops manager] is stretchered down the hill to HLS Red – 07 by B2 team members and assisted by B1 when they meet on the track.
- 1506 - 1507hrs - 56A calls 63 (MACC Operations) on channel 1 and reports the accident and the grid reference to HLS Red – 07. 63 informs 56A to contact the Italian KFOR in MNB (W) callsign kilo foxtrot directly on the MNB (W) channel 4.
- 1508hrs – 56A attempts to contact kilo foxtrot on channel 4 without success. 56A then reports the accident to callsign 51 (NPA) and requests a helo casevac from HLS Red – 07. 51 clarifies with 56A the number of casualties and extent of injuries. 56A can only give the number of casualties as one, but can not confirm injuries.

1509 - 1513hrs – Kilo foxtrot calls 51 and asks for details of the accident and a grid reference. 51 informs kilo foxtrot of the grid at HLS Red – 07. The radio operator for kilo foxtrot has difficulty understanding because of his poor English. This has to be repeated to him. Kilo foxtrot then asks 51 for the number of casualties, which is then given to him, but once again he has difficulty understanding because of his poor English and this also has to be repeated to him. Kilo foxtrot then asks 51 for details of injuries. 51 directs kilo foxtrot to call 56A to get this information as they do not know Kilo foxtrot then calls 56A and asks for details of injuries. 56A informs kilo foxtrot that he does not have this information as the casualty is still being evacuated. He does however give the casualty's name and that they think it is a lower leg amputation. Kilo foxtrot then asks 56A if he wants a medevac by helo, to which 56A responds in the affirmative. Kilo foxtrot then confirms with 56A that the HLS is Red – 07.

1513 - 1514hrs – Kilo foxtrot calls 56A and asks if the casualty is dead or alive, to which 56A responds that he is unable to confirm either way at this time.

1515hrs – Kilo foxtrot once again asks 56A to confirm the detail of injuries, to which 56A responds that he will inform them as soon as he can confirm.

1520 - 1522hrs – Kilo foxtrot informs 56A that they are still waiting for confirmed details of injuries and they will need this before they will dispatch the helo. 56A replies that he understands the situation, however the casualty is still being evacuated to the HLS and he does not have the details. Kilo foxtrot then asks for the casualty's name. 56A gives the name as well as the blood group type.

1523hrs – 53A (HI Programme Manager) informs 56A that 53X (HI medical co-ordinator) is on his way to HLS Red – 07 to give assistance.

1525hrs – 51 asks kilo foxtrot if the helo is on its way to HLS Red – 07. Kilo foxtrot responds that they can send a helo to HLS Red – 07 but they still need confirmation of the injuries.

1226 - 1529hrs – 51 ask kilo foxtrot to confirm that they are waiting for the details of the injuries. Kilo foxtrot confirms this. Kilo foxtrot calls 63L (MACC Liaison Officer for MNB (W)) and they converse in French.

1529hrs – 63L calls 56 and informs that the helo will depart for HLS Red – 07 in 5 minutes.

1532hrs – Kilo foxtrot asks 56A for detail concerning injuries. 56A replies that he cannot confirm the detail, only that they believe it is a lower leg amputation. Kilo foxtrot requests that 56A notify them as soon as the information can be confirmed.

1549 - 1551hrs – 56A informs kilo foxtrot that the helo is at HLS Red – 07 and is uplifting the casualty and he has confirmation of the injuries, which he passes to kilo foxtrot.

1554hrs – 56A confirms with 51 that the casualty will be taken to the Italian Hospital in Peja.

1600hrs – [The Albanian adolescent] arrives at Gjakova Hospital.

1700hrs – [Demining group Ops manager] operated on at Italian KFOR Hospital, Peja.

1800hrs – [The Albanian adolescent] operated on at Gjakova Hospital.

Insurance Details

29. [Demining group Ops manager] is covered by the [Demining group] personal insurance it has for all staff. All insurance policies for [Demining group] are through HMT Insurance Brokers Ltd of London. A copy of the insurance detail is kept in the MACC QA Office.

Conclusions

30. Based on the investigation, interviews, the statements and visits to the site, the Board of Inquiry concludes the following:

- [Demining group Ops manager] was following a guide into an area that was not along a well used path. He had doubts about the area he was in, however the guide seemed confident of where he was going, therefore [Demining group Ops manager] continued to follow him.
- The information according to the VJ records is that there are no blast mines in the minefields in this area.
- The accident occurred 50m inside the Albanian side of the border.
- [Demining group Ops manager] guided the lad out of the immediate area. In the process, they moved past the other PMA 3 mine that they previously walked past immediately before their accident. They were very fortunate not to have also stood on this mine as well.
- Medical aid was on site within 5 minutes of the accident occurring. The TL of B2 reported the accident to 56 at the accident site.
- There was an unnecessary delay getting a helicopter casevac to the HLS. KFOR were unwilling to dispatch it without confirmation of the injuries. It took 40 minutes from the time KFOR were first requested for the helicopter casevac, to when it actually arrived at the HLS. There may have been severe or fatal consequences had the injuries been life threatening.
- The [Demining group] radio log is incomplete and does not record who made, or when the first call came in of the accident. There are other known radio transmissions that have not been recorded in this log during the period of the casualty evacuation. According to the TL of B2 he reported the accident at the accident site. There were no problems with communications between 56 and B2 during the casevac to the HLS. Therefore 56 should have confirmed the injuries with B2 and then notified KFOR before it did.
- Oxygen was not administered to [Demining group Ops manager] until he had arrived at the HLS. This was because oxygen was not available at the team site, but in the ambulance at the main CP, 700m away. All other first aid medical treatment provided to [Demining group Ops manager] prior to his helicopter casevac was good.

Recommendations

31. The following are recommendations based on the Board of Inquiry conclusions:

- Re-emphasise to all clearance organisations to not follow local guides into areas that are considered to be suspect, especially if indications are that the area is not well used by local people.
- Re-emphasise to all clearance organisations that mine casualties should remain where they are after the accident if they know help is arriving, and wait to be extracted from the danger area. This is to avoid further injury from any other mines that could be in the vicinity.
- The [Demining group] Net Control Station must maintain a complete and accurate radio log of all radio transmissions.
- If KFOR receive a request for a helicopter casevac then it should be sent without delay.
- Further specific medical recommendations are detailed at Annex G [see Emdical report for Victim No.1].

Signed: UNMIK Mine Action Co-ordination Center, Quality Assurance Officer

Annexes:

- A. MACC convening order for accident investigation Board of Inquiry.
- B. List of personnel involved with attached statements as Appendices.
- C. IMSMA Mine Accident Report.
- D. Map of the general area.

- E Schematic diagram of the general accident area.
- F The [Demining group] radio log.
- G. Medical report from the MACC QA Officer, with KFOR Hospital report and Gjakova Hospital Report.

Comments by the MACC Chief Operations Officer

This accident occurred across the border in Albania. The boy who led [Demining group Ops manager] into the minefield is from a village situated in Albania. Whilst much is known of the mined area locations within Kosovo, little is known about the situation in Albania. Many of the mined areas in Albania are generally located very close or adjacent to the actual border.

All mine/UXO clearance organisations are to ensure that their efforts are confined to those mined areas located within Kosovo and that are contained within the Task Dossier.

[Demining group Ops manager] allowed a local boy, from Albania, to lead him across the border, into an unknown area and into a minefield with tragic consequences. This is an old lesson relearned.

There was a 41 minute delay (15.08 – 15.49 hrs) from the time that a helicopter was first requested to the actual time of its arrival at HLS Red-7. This time may have been considerably shortened if 56A had been able to answer basic questions from Kilo-Foxtrot (KF). This information should have been readily available via callsign B2 and communicated to 56A on request. The language difficulties of two non-native English speakers, 51 (Albanian) and KF (Italian), attempting to pass information in English also compounded this situation. This is a reoccurring problem in MNB (W) and may easily be alleviated by the realisation that very few Italian soldiers speak good English but there are a great number of Kosovo Albanians that do speak good Italian and English. The hiring of such people as radio operators would go a long way to resolving this on going problem.

The Recommendations and Conclusions of the Board of Inquiry are fully endorsed and concurred with.

Signed: UNMIK Mine Action Co-ordination Center, Chief of Operations

Comments by the MACC Programme Manager

The conclusions and recommendations of this BOI are concurred with.

This accident serves to highlight the risk associated with the conduct of reconnaissance tasks prior to clearance operations commencing. [Demining group Ops manager] is a very experienced supervisor, and has been injured because he trusted the local guide more than he trusted his instincts and training. The mine action community is filled with people who have done the same thing, but have been lucky enough to get away with it.

The mines that were encountered in this incident are clearly inside Albanian territory, and therefore beyond the mandate of this clearance programme. MACC Operations Branch are to ensure that clearance organisations are instructed not to cross the border, and particularly not to conduct clearance operations in Albanian territory without the express approval of the MACC.

Handicap International are to be commended for their role in assisting with medical support during this multi-casualty accident. Their intervention was timely and effective.

Signed: UNMIK Mine Action Co-ordination Center, Programme Manager

Victim Report

Victim number: 516

Name: Name removed

Age: 38

Gender: Male

Status: supervisory

Fit for work: not known

Compensation: not made available

Time to hospital: 1 hour 5 minutes

Protection issued: None

Protection used: none

Summary of injuries:

INJURIES

minor Leg

AMPUTATION/LOSS

Leg Below knee

COMMENT

See medical report.

Medical report

Two relevant medical reports for Victim no.1 were made available. Photographs of the surgical procedure were included, along with a photograph showing minor blast injury to the Victim's other leg.

Medical report concerning [names excised] accident 04/05/01 14.55 PM

This report is based on interviews with the following staff members from [Demining group]:

[Two demining groups medics and the Medical Co-ordinator of Handicap International.]

Attachments:

Casualty report [Demining group], medical report Italian Field Hospital, medical report Gjakova Hospital.

Introduction:

[The demining group] have three seven-man clearance teams conducting operations in the vicinity of Cafa Prusit. The accident occurred approximately 300 meters to the south of one team (B2) clearance site. On the day of the accident [Victim no.1] was endeavouring to confirm the location of Dangerous Areas in this vicinity. At the time of accident [Victim no.1] was following [Victim no.2] along a track. The track was considered to be safe when [Victim no.2] stepped on a mine. Due to the explosion [Victim no.1] took a step backwards and stepped on a second mine. At the time of accident there was one qualified medic, Mr. [name excised], with his medical equipment approximately 300 meters away from the place where the accident occurred. Additionally there was one more qualified medic, Mr. [name excised], posted at the control point 600 meters away from the accident site. When [Medic no.1] heard the explosions he rushed towards the accident site. [Victim no.1] and [Victim no.2] received first aid treatment by [Medic no.1] as soon as they were moved out from the minefield to a safe area. After [Victim no.2] had received first aid treatment he was evacuated via the control point to Gjakova hospital by road. [Victim no.1] received first aid treatment at the safe area and was subsequently moved to the control point. [Victim no.1] received additional treatment from the Medical co-ordinator of Handicap International while awaiting the arrival of the CASEVAC helicopter. Finally the CASEVAC helicopter transported [Victim no.1] to the Italian Field Hospital in Peja.

Order of events:

Time	Event
14.55 PM	Accident occurred.
14.58 PM	[Victim no.2] receives first aid treatment.
15.00 PM	[Victim no.1] receives first aid treatment.
15.00 PM	[Victim no.2] evacuated from the safe area.
15.05 PM	[Victim no.1] evacuated from the safe area.
15.09 PM	Request for CASEVAC helicopter received by KFOR.
15.20 PM	[Victim no.2] evacuated from CCP by ambulance.
15.30 PM	[Victim no.1] arrives at CCP.
15.34 PM	CASEVAC helicopter takes off from Peja.
15.49 PM	CASEVAC helicopter landed at CP.
15.55 PM	CASEVAC helicopter airborne.
16.00 PM	[Victim no.2] arrives at Gjacova Hospital.
16.10 PM	[Victim no.1] arrives at Italian Field Hospital in Peja.

The following assessments/actions were taken on the safe area by medic [No.1]..

[Victim no.2]: pressure bandage to prevent bleeding.

[Victim no.1]: pressure bandage to prevent bleeding. IV-line canula 18 gauge, infusion Ringer-lactate 500 ml, Intramuscular Injection of 100 mg Pethedine was administered.

The following assessments/actions were taken at CP by the Medical Co-ordinator of Handicap International.

[Victim no.1]: additional dressing, oxygen was administered, additional IV line canula 22 gauge established, Infusion Ringer-lactate 500 ml, puls/bloodpressure was measured, Oxygen saturation was monitored and a cervical collar was applied.

[Victim No.1] who sustained the following injuries:

Traumatic amputation of left foot, small superficial abrasions of the frontal surface of the right tibia.

The below mentioned assessments/actions/therapies was carried out at the scene of accident/safe area .

Primary survey:

Glasgow Coma Scale 4-6-5 =15

Airways: Intact and open.

Breathing Respiratory pattern and rate within normal rate.

Circulation: Blood pressure /pulse within normal rate/limits. The bleeding was assessed as not extensive and controlled by application of compressive dressings, elevation of stump and finally an Esmarh roller was applied.

Disability: A cervical collar "Stiffneck" applied after manual stabilization of head/neck.

Second Survey:

IV line*2 (Both arms) 18 gauge.
500 ml Ringer solution*2 Infusion.
Oxygen therapy via face mask with reservoir 15 l/min.
100 mg of Pethedine IM was administrated

[Victim No.1] has been admitted into the Italian Field Hospital Peja since the day of accident and he will be discharged from hospital 30 of May 2001. The healing process has proceeded without any major complications and there are in my opinion no contraindications for [Victim No.1] to return back to Zimbabwe for further treatment.

Conclusions

CASEVAC was performed according to S.O.P

Oxygen was not administrated to [Victim no.1] at the safe area.

Respond time for CASEVAC Helicopter 25 minutes due to KFOR requested more information concerning the causalities.

"On scene" time exceeded one hour.

Recommendations

Always administrate oxygen as soon as possible to all trauma patients to prevent anaerobic metabolism. When working in areas more than 5 minutes away from CP a portable Oxygen-kit should be brought to the site.

If possible use IV canula with minimum size of 16 gauge to all trauma patients.

All organisations are to provide KFOR with all necessary information as soon as possible in order to avoid unnecessary delays when requesting for helicopter CASEVAC.

Signed: QA Medical Officer, UNMIK MACC



The following is a Surgical/medical report for Victim no.1 that was made available. It has been edited for anonymity but the peculiarities in English have been left in place.

To: QA MEDIC, UN MACC Pristina

From: Regional Liaison Officer MNB West, Pec

Date: 4 June 2001

Reference: RLO/MNBW01M35

Subject:: TRANSLATION OF MEDICAL REPORT

Relaxation for the patient [name excised] 39 masculine years. [The Victim's age was given as 38 on the IMSMA report.]

Hospitalised in emergency at the Italian military hospital on the May 4, 01. The injury was caused by an accident with a mine. The same day he underwent the amputation of his left foot at a distance of " III disc ale ".

During his hospitalisation his injury was controlled frequently.

May 18 the patient has undertaken a HIV and HCV test. The two tests were positive.

The 19 of May the doctor removed points of suture.

Good present general condition.

It is recommended to treat the wound two times per week.

Therapy: Zinnat 500 mg cps 1x2 die, Imeprazen 1cps die, Polivitaminica 1 cps die, Bassado 1 cps die, Toradol au besoin

He left the hospital the 28th of May with the following diagnosis: lesion due to an explosion on the left bottom part of the foot.

In appendix six floppies disks with the images before during and after the surgical intervention.

DESCRIPTION OF THE SURGICAL INTERVENTION

Under local anaesthesia the wound was cleaned. He lost a lot of substance from the front of the left foot. Brief visualisation of the tibia. I don't note a haemorrhage at the level of the venous windpipe. Due to the serious of the injury and the level of contamination, the decision was taken, after having informed the patient, to amputate the left foot.

One exercised a double previous and posterior incision of skin at the level of the foot. Lasting I incision, one could see the muscular groups that were in the process to be isolated. The cut was done before having tightened the veins and the artery. Then we isolated muscular groups as well as the nervous structures. Before the ligature one did an infiltration of carbocaine 2% (without pure alcohol). Then, I one has done the ostéotomie of the tibia at 3rd lower of the fibula (about 1 cm in addition) in two times to join the cover of bones and correctly covering the bones. Frequent cleaning with a solution of antibiotic Na Cl 0.9%. Control of the hemostase. With point of suture one fixed groups muscular on top of it in order to cover the bones. Positioning of a duplicate drainage of type «pen - pink» having the shape of an "U". Suture with a thread of silk.

Victim Report

Victim number: 517	Name: Name removed
Age: 16	Gender: Male
Status: civilian	Fit for work: not known
Compensation: not made available	Time to hospital: 1 hour
Protection issued: None	Protection used: none

Summary of injuries:

INJURIES

minor Hand

AMPUTATION/LOSS

Toes

COMMENT

See medical report.

Medical report

A medical report was made available and is reproduced below, edited for anonymity. Photographs of the Victim's injury before and after surgery were also made available.



THE SPECIALIST'S REPORT

The patient was brought to Emergency Room in civilian Hospital at Gjakova on 04 05 01 at 1600 hrs. After the assistance they gave to him, he was admitted to the Orthopaedic department. They call me to visit the patient, after that I decide that he must undergo operation. We started at 1800hrs under the spinal anaesthesia and we finished the operation around 2100 hrs. The status during and after operation was OK. In mean time he received antibiotics of broad spectrum analgesics, IV fluids, the vaccination and all necessary treatment he needed. For the moment there is a defect on the skin which during the first operation it was impossible to fix, but we are planning another operation on him after a few days.

In my opinion the patient must be at the hospital at least for two weeks more.

Signed: Head of Orthopaedic Dept., 07/05/2001



Analysis

The primary cause of this accident is listed as *"Inadequate training"* because Victim No.1 appears to have forgotten his training and entered a mined area foolishly. The fact that the mined area was not within their jurisdiction (in another country) compounds this error. To follow a local boy and accept their "confidence" is inexplicable. The secondary cause is listed as a *"Management/control inadequacy"* because Victim No.1 was a senior manager and set a very bad example to those beneath him.

He did ensure that he had radio contact, but it may have been fortuitous that deminers were still on site to extract him, and that medics were quickly available (they were packing up to leave when the accident occurred).

Statements

The following statements were made available.

STATEMENT BY – DEMINERS and Team Leader [conflated] - MINE INCIDENT 04/05(01

It was on 04/05/01 at 14:57hrs when we received a mine accident report from Bravo Two (2)

They requested for a Medic with all his kit and the ambulance. a stretcher bed and more personnel to carry casualties as they were reported to be two (2).

We arrived at the [B2's] control point at about 15:10hrs and met the Guide who took us up the hill. On our way after traveling for at least 600 m we met B2 carrying the casualty down to the control point. We then took over carrying the stretcher down to the control point

At the control point the Team Leader then sent the mine accident report to the [demining group] HO and within a few minutes, at 15:50hrs. the Helicopter arrived whilst our medics

were doing final touches to the casualty. The Team leader and the medic accompanied the casualty to Peja KFOR Base, and handed over the casualty to the doctors who took him to the theater.

Signed Team Leaders and deminers.

STATEMENT BY MEDIC B2 - MINE INCIDENT

Our Call-Sign (Bravo 2) was withdrawing from our worksite when we heard two bangs from the South, about 300 m away from us. It was about 1455 hrs. Our reaction was to move around using the safe path towards the direction of the bangs. We heard two people screaming. We called Mr [Victim no.1]'s name and he answered that he had stepped on a mine. The Team Leader established a 'Safe Area' and sent in one deminer to clear toward the casualties. I attended to the local casualty at about 1458 hrs. He was the first to be removed from the minefield, After finishing with him I ordered the locals to go with him down to the main Control Point where they will meet up with the medic of Bravo 1.

I started to attend to [Victim No.1]at 1500 hrs. I stopped the bleeding using two field bandages and one pressure bandage A drip was put in and 500 ml of Ringer Lactate connected. Then I gave him a potent analgesia: Pethadine, 100mg - Intramuscular.

At 1505 hrs I had finished stabilizing him. We started going down the hill and it took us 25 minutes to get to the main control point.

By the time we got to the control point the local casualty had been casevaced, using our ambulance. to the local hospital

The Italian KEOR Helicopter arrived at about 1550 hrs and accompanied the casualty to the Italian Field Hospital in Peja.

STATEMENT BY DEMINER B2 MINE INCIDENT 04105/01

As we were about to knock off our days work, Sunray 56 B left our mine field for a recce of another task. He instructed our Team-Leader to give him a call on our way dawn the Mountain.

On our way down before my team-leader gave a call we heard two Bangs. The team-leader then tried to raise 568 a call but in vain when tried again the Third/Fourth that's when 56B shouted for help informing us that we had stepped on a mine.

We ware given order by our team-leader ard I was told to go down the mountain and wait or the other call-sign which was coming to give us a hand. When I got down I instructed our playtime [driver] to move our ambulance near our way to the mountain. The teamn-leader of BI then arrived with his star-light (medic) plus one deminer. I then led them up the mountain and we met our work-mates with the casualty. We made our way back and when we got to our main control point we were told that one local-guy was taken to Hospital.

Our star-light was helped by the star-tight of Bravo 1 and some other Handicap medics. The Helicopter came and the casualty was taken to the Hospital This is all I can Say about the accident.

STATEMENT BY THE CASUALTY – [Victim No.1]

[Demining group] OPERATIONS MANAGER

I had just departed from C/S 56 B2's location and was making my way down to the men Control Point (CP). At the junction of the Border Patrol Route and a track leading down to the main CP I met a young boy. The Team Leader had mentioned that a young boy had visited the team and had been talking about mines in the area and that the boy had been sent to the main CP. We greeted each other and asked in very simple Albanian whether there were "mines or no mines". He answered with an affirmative "Yes! Mines. Come I will show you". We

followed a path going up from the junction to the top of the slope into an open area and then onwards onto another path. He made to turn right up into the trees but I said "No! Lets stop here". He answered that "No the mines are on top". He seemed so confident about his actions that I relented and followed. We walked up the hill for no more than 100m when the boy stopped and started to look at the ground as if searching for something. It was at this point that I realised that we were in a minefield so I said to him "Let's go back". Almost immediately the boy stepped on a mine and without thinking I tried to assist and stepped on another. The boy got up off the ground and started to cry out and hop around. I tried to calm him indicating that there may be more mines. I called C/S 56 B2's Medic [name excised] on the radio and informed him that we had been injured and asked him to meet us. I guided the boy away from the accident site and awaited the team. At about the same time that the team reached us, some local villagers, who I later found out included the boy's family had made their way to the area. Once we had been evacuated to a safe area, [the medic] attended to our wounds, seeing to the boy first and then sending him down to the main C/P to be attended to by the Medic from C/S 56 B1 who was on the way. After I had been treated we made our way down to the HLS.

I am sure that the mine was a PMA-3 as I recognised a part that had been left behind after the explosion. The boy had also previously described what I thought to be a PMA-3.

Signed: Demining group Operations Manager

STATEMENT BY - TEAM LEADER 82 MINE INCIDENT

CIS Bravo 2 was withdrawing from the worksite and after about 300m from our advanced control point I heard two bangs. At 14-55hrs I called for 56B [The victim] on the small means [hand held VHF, radios] since he had also asked me to raise him when we were going back to our main control point. The first time I called him, he did not answer but later on answered and informed me that he had been injured. I told the whole team to leave all that they were carrying and help the medic carry the medic-peck and the stretcher. I detailed one deminer to clear the area we were using as a path to where the injured were lying. Some locals from the nearby village had already run into the minefield trying to rescue the injured. The first guy to be brought out of the minefield was the local guy 56B was moving with. He was taken to a safe area and bandaged and later to the main control point where an ambulance was waiting. We took 56B out as well and the medic attended to him. Meanwhile I had informed all the other C/S about the accident and asked Bravo One to bring his ambulance, medic and some personnel to help us. Bravo One was at our control point in ten minutes and soon afterward they were coming towards us. We took 56B down on the stretcher and meanwhile the medic took details of the casualty whilst we took him down to the main control point. We met Bravo One half way down the hill and they helped us carry the stretcher. When we arrived at the main control point the Italian army was there and an ambulance from Handicap International. The medics there also attended to the casualty but the injured local guy had already been taken to the Hospital. Bravo One Sunray then sent the mine accident report to 56. Within a short period of time the Helicopter arrived and 56B was taken to the Hospital. I was informed 56A was on his way to us and I waited for him until he arrived and briefed him on what had happened. We then left for HQ.

This is all I know about the accident.

Signed: Team Leader