10-31-2000

DDASaccident328

Humanitarian Demining Accident and Incident Database
AID

DDAS Accident Report

Accident details

Report date:	15/03/2004	**Accident number:**	328
Accident time:	09:15	**Accident Date:**	31/10/2000
Where it occurred:	Nr Jasiq village, MNB West	**Country:**	Kosovo
Primary cause:	Field control inadequacy (?)	**Secondary cause:**	Unavoidable (?)
Class:	Missed-mine accident	**Date of main report:**	07/11/2001
ID original source:	MD/CC/JF	**Name of source:**	KMACC
Organisation:	Name removed		
Mine/device:	PMA-2 AP blast	**Ground condition:**	grass/grazing area rocks/stones sparse trees
Date record created:	20/02/2004	**Date last modified:**	20/02/2004
No of victims:	1	**No of documents:**	3

Map details

Longitude:		**Latitude:**	
Alt. coord. system:	GR DM 381 052	**Coordinates fixed by:**	
Map east:		**Map north:**	
Map scale:		**Map series:**	
Map edition:		**Map sheet:**	
Map name:			

Accident Notes

inadequate area marking (?)

inadequate metal-detector (?)

metal-detector not used (?)

Accident report

The following is the Accident report made by the Kosovo MACC, edited for anonymity. Excess pictures have also been removed.

Introduction

1. In accordance with MACC Standard Working Procedure #4, the MACC Programme Manager issued a Convening Order for an accident investigation Board of Inquiry (a copy of the Convening Order is attached at Annex A).

2. This is a comprehensive report by the Board of Inquiry on the mine accident that occurred on October 31st, 2000.

3. Based on the results of the investigation, the statements from the personnel involved in the accident (see attached statements in Annex B appendix 1 to 8), visits to the accident site and photos from the accident site, this accident can be considered as a preventable mine accident. This finding is qualified by the fact that the accident was not caused by a non-adherence to approved Standard Operating Procedures, but rather a combination of unforeseen circumstances and tragic bad luck.

4. The information provided by [the demining groups – two working together] to the MACC in the "Accident Report" is confirmed. A copy of the "Accident Report" is attached as Annex C. The accident occurred at the beginning of the working day at approximately 09h15 on October 31st, 2000 in a minefield located near the village of Jasiq GR DM 381 052. As [the Victim] [the Demining group] Supervisor for the site, was standing on a rock in a cleared area, he detonated an anti-personnel blast mine. The casualty suffered blast trauma to his right foot resulting in an amputation below the knee on the right leg. Due to the other minor injuries suffered from the blast (right hand and dislocated left big toe), it seems likely that the mine was under a rock. There were no other personnel injured in the accident and there was no property damage.

5. [The Victim] is a Supervisor who has been working with [the Demining group] since September.

6. The accident site is a VJ minefield record #1836 included in the MACC task dossier W01-08. The location where the supervisor stood on a mine was the second row of mines in the VJ minefield. So far, all mines found in the minefield are in accordance with the VJ minefield record.

Sequence, Documentation and Procedure of Tasking

7. This mine/UXO clearance task was given to [another agency] NPA by MACC Operations on September 23rd. [The other agency] didn't work on the site and at the request of MACC Operations the task dossier was transferred to [the Demining group], who had been working in the area previously. [The Demining group] started clearance operations on the site on the 21 October 2000. The minefield was divided into four small mined areas and consisted of two locations with PMA-2 AP blast mines and two locations with PMR-2A AP fragmentation mines (see sketch at annex E). The clearance progress, to date, had been good but because of the very hard and rocky terrain, the clearance drills were modified with the approval of the MACC QA Officer. The modified drill was to prod down to 10 centimetre and excavate the top 5-centimeter. [Metal-detectors were not used at the site.]

Geography and Weather

8. The task site is located close to the village of Jasiq at GR: DN376 058. Access to the site is by the dirt road across mountaineering ground. The weather was cloudy and the ground was damp and the temperature was approximately 10 to 15 Celsius. There is very little vegetation and the soil is very hard. Access to the minefield is across a small river where [the Demining group] built a small bridge.

Site Layout and Marking

9. The site layout and marking was in accordance with the [the Demining group]'s SOPs. The area is marked with 1-meter picket every 5 meter and with mine tape.

The photograph above shows the clearance lane where the accident occurred.

[The red arrow indicates the rock beyond which the blast occurred: notice how far ahead of the lane marking it is. See paragraph 19 in which the investigator reports that the base stick was 4 metres ahead of the marking. The investigator wrote that he was standing on a rock in a “cleared area”, but there is no obvious excavation leading to the site so it seems that he was actually standing in an uncleared area trying to locate the next mine by eye. The next mine was visible – a photograph of its pressure-star was included in the report.]

Management Supervision and Discipline

10. Due to the small size of the minefield, the site was cleared by a section and supervised by the Section Commander, a Deputy site Supervisor and the site Supervisor. The marking was done in accordance with [the Demining group]’s SOPs.

Quality Assurance and Quality Control

11. [The Demining group’s] internal Quality Control and Quality Assurance is obtained through a system of adherence to [the Demining group]’s SOPs, an international QA Supervisor on site, adequate mine/UXO clearance site command and control, training, standards and discipline in the danger area.

12. Due to the fact that this was a recently started task, no external QA had yet been carried out.

Communications and Reporting.

13. Communications on each of the [Demining group] task sites is provided by VHF hand held and vehicle mounted radios. In accordance with [the Demining group]’s SOP, no clearance operations are to be performed without effective communications. On the day of the accident, the mine/UXO clearance team had proper and appropriate communication on site.

Medical Details

14. The Medical Team was call by the Section Commander and arrived in less then 15 second. The Medic Leader assessed the victim, stopped the bleeding and since the vital signs were stable performed a secondary survey, wound care and therapy. The Medical Team Leader decided that a helicopter Casevac was not necessary and the victim was to be transported by road to the Italian Military Hospital in Peja using the [Demining group]’s ambulance.

15. The ambulance driver informed [the Demining group]’s base location about the details of the accident on the Codan Radio. At the same time the members of the second and third

[Demining group] Medical Teams alerted the Police in Junik and requested assistance for the Casevac by road from Junik to Peja. The Junik Police Unit responded positively and provided escort to the [Demining group] ambulance to Peja Italian KFOR Field Hospital. En route to the hospital the casualty's vital signs remained stable. Even after the first 10 mgs of morphine *i.v.*, the casualty still suffered from pain, he was given an additional 10 mgs *i.v.* approximately 20 minutes after the first dose.

16. The ambulance arrived to the hospital at 10.05 and the casualty was immediately admitted and assessed by [a doctor]. Total time of the CASEVAC was approximately 55 minutes.

Personnel

17. A list of the team personnel, and their duties, is attached at Annex B. A written draft of the [Demining group] Preliminary Investigation Report from the Operations Officer and the statements from the personnel that assisted in the CASEVAC is attached as appendices to Annex B.

Dress and Personal Protective Equipment

18. At the time of the accident, [the Victim] was wearing personnel protective equipment according to the [Demining group]'s SOPs. No significant damages were found on the personnel protective equipment. The right boot was totally destroyed and the left boot was damaged from the blast and possibly rock that were on the mine or very close to the mine.

[Photographs showed that the PPE was a frontal vest, helmet and short visor.]

Tools and Equipment

19. [The Victim] was not using any equipment at the time of the accident. However he was carrying a small pair of vegetation cutters in his right hand. Both the vegetation cutters and the two parts of the broken base stick were located in front of the blast hole in the uncleared area. The base stick [shown below] is broken in two and was approximately 4 meters inside the uncleared area.

Details of Mine Involved and evidence of Minefield

20. The mine was a PMA-2 anti-personnel blast mine. The VJ record is very precise on the types of mines in the minefield and all mines found so far are PMA-2 in accordance with the VJ record.

Account of Activities

21. The following is the description of the events that led up to the accident. (The statements that were evaluated to describe the events are attached in Annex B as Appendixes 1 to 11) [not made available]:

A) At 08h05 the section started working. Due to the limited area only one deminer could work at the time. [A woman deminer] was the deminer on duty. After working for approximately 25 minutes she found a PMA-2 mine.

B) At approximately 08h30, the deminer found a mine and called the Section Commander who informed the site Supervisor [the Victim]. In accordance with [the Demining group]'s SOPs he had the area evacuated and neutralized the mine.

C) The deminer then went back in her lane and carried on working for approximately 15 to 20 minutes until she cleared about 3 meters and could no longer use her base stick due to the uneven ground. She informed her Section Commander who called the site Supervisor.

D) The site Supervisor took the decision to send the deminer back to the resting area and started to clear the area himself.

E) The Section Commander was standing by at approximately 15 meters away. After clearing forward and around a big rock, the Supervisor decided to stand on the big rock to look for the next mine.

F) The only thing the Supervisor remembers is standing on the rock. The next memory he has is waking up in the Italian KFOR field hospital the next morning.

G) The Section Commander was not looking at the Supervisor at the time of the accident and couldn't witness the accident. When he turned around, he saw that [the Victim] was in the uncleared area, between the two rows of mines. The Section Commander called for assistance.

H) The Deputy Task Site Commander came to the site and pulled [the Victim] into the safe lane. With the assistance of [the Section Commander] put him on a stretcher and carried him out of the mined area to the medical treatment point. At the medical treatment point were medics [the Medic Leader] and [Second medic] who stabilised him.

I) Immediately the casualty was treated and after conducting an evaluation of the injuries the decision was taken to evacuate the casualty by road.

J) The road evacuation was very well organized with the help of the UNMIK Police base in Junik (see Appendix: 2 to Annex: B)

K) The total time for the CASEVAC was approximately 55 minutes after the bang to the Italian KFOR field hospital.

Insurance Details

22. The standard [demining groups] cover insures all contracted [demining groups] personnel involved in mine/UXO clearance activities. A copy of the insurance policy is at Annex F.

Conclusions

23. Based on this investigation, the statements and visits to the site, the BOI came to the following conclusions:

- The marking procedure was done in accordance with [the Demining group]'s SOPs.
- There is no witness to the accident.
- The Supervisor [the Victim] was wearing his PPE according to the [Demining group]'s SOPs.
- The mine involved in the accident was a blast anti-personnel mine type PMA-2.
- The [Demining group]'s SOPs were followed and the modified procedure used by the deminer and the Supervisor was previously discussed and approved by the MACC QA Office.
- The evacuation of the casualty was carried out in accordance with [the Demining group]'s SOPs and the treatment he received was very professional.

- The road escort provided by the UNMIK police allowed a considerable saving of time.
- The transfer to the Italian KFOR field hospital and the treatment provided by the surgical department was very good.
- This accident was unfortunate but preventable.

Recommendations

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

- The BOI agrees with the recommendations in the [Demining group] Preliminary Investigation Report. However the behaviour of the Section Commander on the site was not appropriate, he should have been more vigilant and observed the Supervisor during his work.
- Evacuation by road with the assistance of the UNMIK police should be considered as an alternative means of CASEVAC, especially in MNB (W).
- Proper medical debriefing should be provided to the staff closely involved in the accident.
- [The Demining group's] proposed recommendation to revise their drills to include a procedure specific to rocky terrain be authorized and implemented immediately.

Signed: QA 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/UXO Accident Report

D: MACC QA Medical Officer "Medical Report"

E: Sketch from the VJ minefield record

F: Copy of the [The Demining group] Insurance Policy.

Comments by the Chief Operations Officer

Whilst this accident is both tragic and at the time unforeseen, it may be prevented from occurring in the future by the immediate adoption of the revised drill.

The lessons learnt from this accident and the revised drill are to be promulgated to all mine / UXO organizations with a clear recommendation from the MACC that they are considered for implementation immediately. This is particularly important, as the terrain that [the Demining group] was working in at the time of the accident is prevalent in most current task sites.

I agree in full with the findings and recommendations of this report.

Signed: Chief Operations Officer

Comments by the Programme Manager

I concur with the finding and recommendations of this Board of Investigation.

Signed: Programme Manager

Victim Report

Victim number:	412	**Name:**	**Name removed**
Age:		**Gender:**	Male
Status:	supervisory	**Fit for work:**	yes
Compensation:	not made available (insured)	**Time to hospital:**	55 minutes
Protection issued:	Frontal apron Helmet Short visor	**Protection used:**	Frontal apron, Helmet, Short visor

Summary of injuries:

INJURIES

minor Arm

minor Face

minor Leg

minor Neck

severe Foot

severe Hand

AMPUTATION/LOSS

Leg Below knee

COMMENT

See medical report

Medical report

The demining group's internal report listed the victim's injuries as:

Traumatic amputation right foot;

"Superficial" damage to right hand;

Broken big toe on left foot;

Superficial damage on underside of chin.

The demining group produced their own medical report, reproduced below (edited for anonymity).

The following accident report was created by [a Doctor] the member of Polish Medical Mission and [Demining group] Medical Coordinator on the basis of interviews with the following persons involved in the medical part of CASEVAC as of 31/9/00 (in timely order):

- Medical Team Leader of the Jasic Medical Team
- Medic of the Jasic Medical Team
- Radio Operator
- Ambulance driver of the Jasic Medical Team

- The Italian KFOR Hospital Surgeon responsible for the hospital treatment
- The Operations Officer
- [A doctor] Koshare 4 Medical Team Leader

Accident details

Accident location: Jasic (DM 376 058)

Accident Date: 31/10/2000

Accident Time: approx. 9.15

Medical Team Response Time: approx. 10 seconds.

Persons involved:

- Victim: DOB: 1971; Jasic Task Site Commander
- Task Site Commander (TSC):
- Deputy Task Site Commander:
- Medical Team Leader (MTL):
- Medic 1:
- Ambulance Driver:

Timing:

- Stabilization Phase Time: approx. 15 minutes
- Transporting time: approx. 35-40 minutes
- Arrival Time to Italian KFOR Hospital in Peja: 10.08
- Overall CASEVAC time: approx. 50-55 minutes

Patient's Destination: Italian Military KFOR Hospital Peja

Receiving Doctor's Name: [A doctor]

Surgical Procedures:

- debridement and closure of the right foot amputation,
- repair of the right III finger long extensor tendon,
- stabilization of the left toe amputation fracture

Assessment and treatment processes description:

Primary survey:

- the patient was conscious and responsive in full and logical verbal contact,
- airways intact and open,
- respiratory pattern and rate, pulse rate and blood pressure within normal limits,
- stiffneck collar was applied after manual stabilization of the head.
- the bleeding was assessed as not extensive and was controlled by application of the compressive dressing and elevation of the stump,

- the sterile dressing was applied to the right hand wound and the fingers were immobilized by bandaging them together,
- the sterile dressing was also applied to the left foot.

Secondary survey: Wounds description

- transtibial traumatic amputation of the right leg approximately at 2/3 distal of tibia with concomitant destruction of the surrounding tissues;
- deep incisive wound of the dorsal surface of the right hand;
- deep incisive wound of the medial surface of the left foot;
- several superficial foreign body-type (explosive and soil) abrasions and burn wounds of the frontal surface of the left tibia;
- contusion resulting in subcutaneous haematoma of the front lower surface of the left arm;
- several foreign body-type (explosive and soil) burn and incisive wounds of the neck as well as lower part of the face.

Therapy

1000 ml 0,9% Ringers lactate

100% oxygen via face mask with reservoir– oxygen flow: 10l/min.,

immobilization of the stump

Drugs:

10 mg Morphine *i.v.*
followed *en route* by
additional 10 mg Morphine *i.v.* approx. 20 minutes after the first dose.

Accident Chart

Filled by the MTL and handed over to the receiving surgeon (the signed copy is in the possession of the Medical Coordinator

The sequence of events

1. The Toyota Landcruiser ambulance with the medics and the pre-hospital trauma care equipment was called on the radio and arrived to the base lane approx. 10 seconds thereafter. The short response time was due to the fact that the ambulance was on immediate stand-by because of Disarming The Mine Procedure announced by the Task Site Commander few moments earlier and also because of the short distance between the resting area and the base line (approx. 20 m).

2. The Medical Team Leader assessed the victim, stopped the bleeding and since the vital signs were stable performed a secondary survey, wound care and therapy. The Medical Team Leader decided that the Rotary Wing Casevac will not be necessary and the victim will be transported to the Italian Military Hospital in Peja by the ambulance.

3. The base location was informed about the details of the accident on the Codan Radio by the ambulance driver and subsequently contacted KFOR requesting the notification of the receiving hospital. At the same time the members of the second and third Medical Teams alerted the Police in Junik and requested assistance for the Casevac Vehicle on the road to Peja. The Junik Police Unit responded positively and escorted the Casevac Vehicle, providing undisturbed transport to Peja Military Hospital.

5. En route the hospital the casualty's vital signs remained stable. Since, regardless of the first 10 mgs of morphine *i.v.* the casualty still suffered from pain, he was given additional 10 mgs *i.v.* approx. 20 minutes after the first dose.

6. The ambulance arrived to the hospital at 10.05 and the casualty was immediately admitted and assessed by [a doctor]. Upon completion of the detailed assessment the operation was carried out as described above and in the KFOR Military Hospital operation form.

Communication description

Deputy Task Site Commander with Medical Team Leader – effective

Deputy Task Site Commander with base location – failed; assisted by the ambulance driver by Codan radio base with KFOR CIMIC HQ Peja – effective

CIMIC HQ Peja with KFOR hospital Peja – effective

Signed: Medical Coordinator (Polish Medical Mission)

Local Medical Coordinator

In December 2001, the MACC reported that, after rehabilitation and setting of a permanent prosthesis in Denmark, the Victim was back working as a Supervisor for the demining group.

Analysis

The Primary cause of this accident is listed as a *"Field control inadequacy"* because the Victim was a field supervisor who stood on a rock without checking around it properly. The secondary cause is listed as *"Unavoidable"* because the mine may have been missed by two people when he stood on it, so implying that it may have been impossible to find using the methods deployed. Those methods appear to have been largely "visual" but they were apparently approved at the time.

However, if the deminer who asked for his help was right (see Statements) the Victim stepped in front of the base stick onto a stone as he tried to locate the missing mine (the PMA-2 is always laid with the plunger above ground). The broken base-stick may be taken to imply that he stepped on, or over, it. The lack of lane marking for several metres up to the accident site is unusual, but was also apparently approved.

The demining group's concern for the victim and medical report are impressive.

As with most reports from the Kosovo MACC, the accident report demonstrates an unusually thorough and critical approach to accident investigation. The Mine Action Co-ordination Centre that carried out the investigation was not engaged in demining, and this may (in part) explain the unusually objective nature of their investigations

Related papers

A list of the Annexes of the report is followed by the demining group's internal accident report.

Annex A: MACC convening order for accident investigation Board of Inquiry

Annex B: List of personnel involved with attached statements as appendices – omitted for anonymity.

ANNEX C: IMSMA Mine/UXO Accident Report

ANNEX D: MACC QA Medical Officer "Medical Report"

ANNEX E: Sketch from the VJ minefield record

ANNEX F: Copy of the [The Demining group] Insurance Policy.

Demining group Preliminary accident report

Foreword

Operations Officer makes this Preliminary Investigation Report.

The Final Investigation Report will be made when UNMIK MACC issues an information bulletin after the completion of their investigation.

This report is made in accordance with:

UNMIK MACC Guidelines, Chapter Seventeen,

INVESTIGATING OF MINE/UXO ACCIDENTS AND SERIOUS INCIDENTS

Investigation Team

[Names omitted for anonymity.]

This report states the preliminary result of [the Demining group's] Mine Action Team investigation of the Mine Accident in Task W1-8 ID No.1836 – JASIQ on the 31ST of October 2000 at 0915 hours, at Grid 34T DN 376 058 (Clearing lane)

Signed: Investigation Team Leader and Team members

Circumstances surrounding the accident

Based on the statements, interviews, evidence, investigation on site, and the injuries, the Investigation Team concludes that what happened was:

Before the accident

Deminer [No.2] was working in the only open lane at site W1-8 Jasiq. She had found a PMA-2 mine and had called her Section Commander over to look. After an inspection the Section Commander called the Local Supervisor from the Rest Area to disarm the mine. He sent the deminer away from the lane and went through the disarming procedure. When this was complete he called deminer [No.2] to the lane and briefed her where the next mine should be according to the pattern of found mines. He then left the lane.

The accident

The accident was not witnessed by the only men present Section Commander who was looking away at the time of the detonation. The only other person present was the victim Local Supervisor.

Deminer [No.2] called over her Section Commander as she had not come across the mine that would have been in accordance with the pattern. The ground was also becoming very rocky and she could not carry out the chosen drill of 5 cm excavation and 10 cm prodding. The stony condition of the ground was also preventing her from putting her base stick down properly. Section Commander understood that the drill could not be carried out and called Local Supervisor.

The Local Supervisor told deminer [No.2] to leave the lane and return to the rest area. He then began to work in the lane. Approximately 15 minutes after this, the Local Supervisor either stepped on or slipped off a rock on to a PMA-2 mine. The blast from the mine threw him into the uncleared area to the right of the lane, approximately 3 meters away. Section Commander saw him on the ground and saw that his right foot was missing.

After the accident

Section Commander called for assistance. The Deputy Task Site Commander came to the site and pulled [the Victim] into the safe lane. With the assistance of [others] put him on a stretcher and carried him out of the mined area to the medical treatment point. At the medical treatment point where [two] medics stabilised him.

Radio Operator contacted KFOR and informed them that there was a casualty on the way.

All other [Demining group] sites were in the process of shutting down because of the weather. Task W1-8, Jasiq will be closed until UNMIK MACC has finished the investigation of the accident.

Summary of salient facts

The Preliminary Investigation report is based on:

Data as listed in the Accident Report
Visual evidence
Investigation on site
Investigation of equipment
Damage
Injuries to personnel
Damage to clothes
Damage to equipment
Statements and Interviews with the involved Personnel

[Demining group] working hours

[Demining group] working hours on the 31st of October 2000: 0700 – 1500

All deminers leave base in Hereq at 0700 hours and start demining on arrival on the sites, finish demining at 1400 hours.

Personal Protection Equipment

The Local Supervisor and the Section Commander were wearing protective vests and the visors were down.

Accident Report

Included, as annex A, is a copy of the MACC Mine/UXO Accident Report. {See the main Incident/Accident report for this accident.]

Task, Date, Time and Place of Incident/Accident

Task: W1-8 ID No.1836 - JASIQ
Date: The 31ST of October 2000
Time: 0915 Hours
Grid: 34T DN 376 058 (Clearing lane)

Visual Evidence

Included, as annex B, are pictures of the Accident site, equipment used by the Local Supervisor and pictures of the medical equipment.

Schedule of resultant damage

Included, as annex C, is a schedule of resultant damage.

This covers injuries to the Local Supervisor, his clothes and equipment.

Injuries to the Local Supervisor are based on a preliminary written report from the Medical Co-ordinator. Refer to Medical Annex E.

Statements

Included, as annex D, is a computer copy of the statements from the involved personnel. The statements are in Albanian and translated to English. Signed copies of the statements are kept on file.

Involved Personnel

Local Supervisor
Deputy Task Site Commander
Section Commander
Deminer
Medical Team Leader
Medic
Driver

Preliminary Conclusions and Recommendations

It is my opinion that the mine was concealed under a rock or rocks and was thought to be a safe place to step. Many of the rocks had moss in the gaps, this could have been lifted and the mine covered and then replaced. The supervisor was a very dependable man with an exemplary record as a Deputy Task Site Commander, Task Site Commander and finally a Supervisor.

Personal Protection Equipment

The helmet protected the supervisor was scratched from the fall but not damaged from the blast. Though the visor was down the base of the supervisors chin was superficially pitted by upward blast. There is no evidence to suggest the protection vest prevented any injury from the blast.

Visual Evidence

The visual evidence is documented with sketches and pictures in annex B.

The victim's right boot was completely destroyed. The left boot was penetrated leaving a jagged one cm hole. The top of the right sock was removed by the medics from the lower leg. The left sock was blood stained from the puncture hole and the resulting broken toe. The Victim's helmet had minor scratches, from the impact of the blast. The Victim's visor had small pitting from on the downward edge of the visor. The Victim's vest was covered in mud from rolling on the ground with very small powder burns around the groin area.

Investigation on accident site

The investigation on the accident site is documented with sketches and pictures in annex B.

The blast hole appears to have been in the area immediately on the base stick line, which indicated that the Supervisor did not step out of or over the base stick line. It is understood that a rock on this line prevented him from carrying out the prodding or excavation drill.

Injuries

Injuries to the Supervisor:
Traumatic amputation right foot;

“Superficial” damage to right hand;
Broken big toe on left foot;
Superficial damage on underside of chin.

No other persons sustained injuries.

Statements

See Circumstances surrounding the Accident.

Summary Conclusion

Accident: The Supervisor detonated a PMA-2 by either stepping directly on to it or stepping on to his base stick.

The accident is considered 'a human error'.

Evacuation

The evacuation of the casualty was carried out according to [demining group] SOP.

The confusion as to who did exactly what is to be expected is a situation like this. The main point is that the Local Supervisor was evacuated from the lane quickly after the accident.

Medical

Medics treated the Local Supervisor within 5 minutes of the accident and he was in the Argentinean Hospital in under 45 minutes.

The treatment he received was conducted professionally and the medevac to the Hospital was quick and was escorted by UNMIK police vehicle.

The treatment in the Italian Military Hospital was also extremely professional.

Radio Communications

KFOR was alerted and the hospital was put on stand-by to receive the casualty.

Standard Operating Procedures

The SOP requirements were met on all points.

Recommendations

When demining in a rocky area all rocks must be moved out of the clearance lane. It is clear that the mine was concealed in a manner not consistent with other mines found in the area. Therefore, additional suspicion must be given when dealing with rocky ground. This will be added to the SOP.

The Radio Operator must be completely aware of which Supervisor is working at which site. The movements board must be updated on an hourly bases.

An alternative to the base stick must be introduced when working in a rocky environment.

Both the Section Commander and the Deminer are commended for bringing the difficult situation to the attention of the Supervisor.

Acknowledgements

[The Demining group] would like to thank:

- The Italian KFOR for their swift admittance of the casualty to their hospital in Peja and the subsequent operation carried out on the Supervisor.
- UNMIK Police for providing an escort to the Italian Hospital in Peja.
- All other Demining organisations using the MNB(W) channel for staying of the net during the Accident. This shows a high degree of professionalism.

Statements

Statements from witnesses that have been edited for anonymity follow.

Ambulance driver

Signed and Dated 2000-11-01

When I heard the bang I started the vehicle and got prepared. Around 9:30 we drove towards military hospital in Peja. On our way there, in Junik, UNMIK Police leaded us to open the road and at 10:05 we arrived in hospital.

Deputy Task Site Commander

Signed and Dated 2000-11-01

While I was in Resting Area around 9:15 I heard a detonation and for the moment we heard the Section Commander asked the medics for help because in the mine field there was an accident. I as a Deputy Task Site Commander answered and run towards mined area and I took the stretcher with me. When I arrived at the site I saw that [the Victim] had had an accident. I approached him together with [another], we took of his helmet and the anti-ballistic vest, we putted him on the stretcher and bore him to the medical point.

Medics gave him the first aid very quickly and very professionally.

QA Question 1: Did it rain before the accident occurs?

Answer: No, but the soil was very damp.

QA Question 2: In your own word what do you think happened?

Answer: I don't know, [the Victim] was always very careful, I don't know.

Medical Team Leader

Signed and dated 2000-11-01

I state that until that moment we was sitting in resting area, myself, [another] and the driver in auto ambulance.

Sometime around 9:15 we heard a bang and in that moment the auto ambulance was started. After few seconds we got a call via motorola from [name] and he informed us about the accident. We went near the bridge and took our equipment out. Around 9:20 we received the patient and we immediately started the immobilisation and taking care of him. We gave him infusion with morphine for pain, checked his pulse, temperature and oxygen. At 9:30 we drove towards military hospital in Peja, with my order. During the journey the patient was conscious and we communicated with each other. At 10:05 we arrived in military hospital and we placed the patient there.

QA Question 1: Did the bleeding increase during the casevac by road?

Answer: [The others] checked the bandaged parts of the body several time during the casevac to KFOR Hospital. A short time before entering KFOR Hospital there was visual blood outside the bandage but no need to add more dressing.

QA Question 2: Was the second dose of the analgesic drug given due to the driving?

Answer: The driver had continuously communication with the medics, which also had communication with the casualty about if the speed was appropriate for him. The morphine would have been given in any case.

Deminer

Signed and dated 2000-11-01

At 8:05 we started the work and I was in the first shift. Sometime around 8:30 I found one PMA-2A mine and I informed Section Commander) about that. He informed [name] and [name] came and sent me away and after few minutes he disarmed the PMA-2A mine.

After the disarming I commenced the work and during the work the terrain was bad with a lot of stones. But in the place were the next mine was supposed to be it was nothing. I informed the Section Commander to come and check the place. He did that and than he called [the Victim] and told him that the mine belt was lost. [The Victim] came from the resting area and told me to go to the resting area while he was going to check that. It was around 9:00.

I went to the resting area and after a while I heard a bang and I don't know anything more because I haven't seen more and that I am very shocked.

QA Question 1: Were you using the base stick?

Answer: Yes, I was using the base stick but because of rock and the not level I couldn't use it further so I called the Section Commander.

QA Question 2: Could you indicate on the picture where was your base stick when you called the Section Commander?

Answer: [indicated.]

QA Question 3: How many square meters did you clear after you found your first mine?

Answer: I don't know.

QA Question 4: After visiting the accident site today, did you noticed any change since yesterday?

Answer: Yes, there is a big stone missing that was in front of my base stick.

Statement – Section Commander

Signed and dated 2000-11-01

I state that we start the work at 8:05 with the first shift. I instructed [Deminer No.1] to do the work and she started with work. During the work she found a mine and she informed me about that and that she has approached the mine 50cm. I ordered her to stop the work and informed [the victim] to come and disarm the mine. [The victim] came and before he disarmed the mine he sent [Deminer no.1] to the resting area. After the disarming [the Victim] went back to the resting area and [Deminer no.1] was back to commence the work. She continued with work and after a while she informed me that the mine that is supposed to be there it hasn't shown up. I went there to check the place and I couldn't see the mine I called [the Victim]. He came and sent [Deminer no.1] to the resting area and told me to stay at the entrance of the lane. Sometime around 9:15 I heard a bang and I went there and saw [the Victim]. He was fully conscious and I communicated with him. I informed medics and [name] came with a stretcher and we together pulled the victim. We took of the victims protective equipment and we laid him on the stretcher and bore him to the medical team. Than I together with the medical team sent him to the hospital.