6-12-2000

DDASaccident354

Humanitarian Demining Accident and Incident Database
AID

DDAS Accident Report

Accident details

Report date:	19/05/2006	**Accident number:**	354
Accident time:	13:25	**Accident Date:**	12/06/2000
Where it occurred:	Badana village, Penjwen district, Sulaimanya Governorate	**Country:**	Iraq
Primary cause:	Field control inadequacy (?)	**Secondary cause:**	Inadequate training (?)
Class:	Excavation accident	**Date of main report:**	14/06/2000
ID original source:	MA/TOM	**Name of source:**	MAG
Organisation:	Name removed		
Mine/device:	VS50 AP blast	**Ground condition:**	dry/dusty grass/grazing area hard
Date record created:	21/02/2004	**Date last modified:**	21/02/2004
No of victims:	1	**No of documents:**	3

Map details

Longitude:		**Latitude:**	
Alt. coord. system:	MF: G/S/0389	**Coordinates fixed by:**	
Map east:		**Map north:**	
Map scale:		**Map series:**	
Map edition:		**Map sheet:**	
Map name:			

Accident Notes

no independent investigation available (?)

visor not worn or worn raised (?)

inadequate equipment (?)

inadequate communications (?)

squatting/kneeling to excavate (?)

partner's failure to "control" (?)

inadequate training (?)

Accident report

The demining group made its own inquiry and the internal accident report. The report was supplied in corrupt digital form. It has been repaired as well as possible and is reproduced below, edited for anonymity.

INVESTIGATORS REPORT

The accident was investigated by the demining group's Technical Operations Manager (TOM). The investigation took place on 12th June 2000 at 1500hrs.

The weather on the day of the accident was "hot, dusty and dry". The Victim had been a deminer since 1997. On the day of the accident the deminers had been working for five hours including rest periods.

General:

The accident occurred in the minefield designated as G/S/0389. This minefield is situated near Badana village in Penjwen district of Sulaimanya Governorate. This minefield has been under clearance since 5th of March 2000, and up to date, the team working on this task destroyed over (90) mines (VS 50 & V 69) in this minefield and the majority of the VS-50s were buried and with no detonators in.

On Monday 12th of June 00, I was on a second day of my leave due to the death of one of my relatives and I was at the mosque for funeral when I have been informed by one of [Demining group]'s drivers that we had a mine accident in Ahmada Rash minefield in Badana village. So I have decided to leave the mosque and outside of the mosque I saw the Training, Monitoring and Evaluation supervisor and he explained the situation very briefly.

At the time of the accident the Head of Training, Monitoring and Evaluation (Acting TOM) was in Dyana operations base and decided to suspend the operations in all operational sites until further notice from the TOM and at the same time he sent a message to the team who had the accident saying don't touch the equipment involved in the accident and guard the site until the arrival of the investigation team.

The message sent by the Head of TMEU was taken the other way round by Sulaimanya branch manager confusing it as saying, "bring all the equipment involved in the accident to TMEU's office in Sulaimanya".

The message I have received said that the ETA of the casualty to Emergency hospital was very soon, so I decided to go to the hospital first to see the casualty. An incorrect ETA message was passed to Charley at base in Sulaimanya by Sulaimanya Branch radio operator.

After the confirmation of the correct ETA for the casualty by the Senior Medical Officer, Sulaimanya Radio operator told us that the accident occurred at 13:25 hrs and the ETA of the casualty arrival to emergency hospital will be at 15:05 hrs.

At 15:05 hrs the casualty arrived at the Emergency hospital, on the arrival of the casualty I noticed the following:

a) The casualty was fully conscious.
b) I could not see any bleeding.
c) Both eyes were dressed.
d) IV drip was in place and open.

I left the Emergency hospital and returned to HQ and assembled a team consisting of 1 medic, Sulaimanya Field Operations Manager, the Team Leader of the site, the supervisor, the TMEU supervisor and we set off to the accident site.

Accident Site:

On arrival at the minefield we positioned the medic in the safe area and then entered the minefield and walked to the accident site. The team leader in charge of the minefield said that he has been told by Chwarta Operations Base to take back all equipment involved in the accident to the TMEU office in Sulaimanya.

Prior to the investigations I have asked the Team Leader was he aware of that the equipment involved in accidents should not be touched and the minefield guarded until the arrival of the investigation team?

The Team Leader in charge said, "Yes" and explained the case further by saying "I have had no direct communication with Chwarta base, so I have to relay my messages through the Team Leader of Dary Chia minefield to base. I was told to stop work and return all the team's equipment to the base and take the mine detector to the detector technician in base for checks and take the other equipment involved in the accident to TMEU office in Sulaimanya". The Team leader continued and said "I confirmed the message which said take those equipment *involved in the accident back to TMEU's office in Sulaimanya. This message was confirmed me for three times* and at the end the answer was yes take them back to Sulaimanya."

On entering the minefield an inspection of the minefield was carried out. The layout of the minefield and the safe lane where the accident took place was clearly marked out as per SOPS. All equipment involved in the accident was removed from their original places, so I decided to task the team leader of the site to place them back to their original places inside the cleared area. I noticed that one row of VS-50 anti-personnel blast mine was crossing the confirmatory breach No. 2 where the accident took place.

The ground was hard and dry and covered with long thick grass. The method of the clearance being deployed that day in the safe lane where the accident took place was electronic clearance.

This minefield containing two types of mines (V69 bounding fragmentation and VS-50 blast mine).

On examining the injured deminer's equipment, I noted that most of the damage had been to the both sides (inside + outside) of the helmet visor. His jacket had minor damage from the blast and the upper rear part from the back of his jacket was covered in blood mainly on the left hand side, there was no penetration point from fragmentation.

After taking necessary photographs of the site, the seat of the explosion and the whole minefield I started interviewing the team leader in charge of the site and his assistant on the site, then I decided to return to Head Quarters in Sulaimanya.

One day after the accident I started interviewing all relevant personnel involved in the accident, the team leader in charge, his deputy, radio operators from Sulaimanya and Chwarta bases and others.

CONCLUSIONS:

As a result of interviewing all relevant personnel above and visiting the accident site, I have reached the following conclusions and recommendations:

The injured deminer was overzealous in the use of his hand prodding drills and procedures, because he might have thought that the VS-50 mine did not contain any detonators the same as the majority of other VS-50 mines found in this minefield.

I conclude that the injured deminer was kneeling right over the mine when the mine exploded or he failed to wear his protective equipment, especially his helmet and visor, correctly as per Northern Iraq Standard Operating Procedures.

The injured deminer said that after locating a source of the detector reading he started investigating the reading and with the first attempt to hand prod the mine, it functioned. This clarifies that the injured deminer failed to adopt a safe hand prodding drills and procedures by

prodding on top of the mine rather than commencing his investigation 15cms behind the reading/signal.

There is no more than a slight possibility that the explosion wave might have caused the straps of the injured deminer's ballistic helmet to come undone and let the fragments hit his eyes and face.

After checking the Chwatra radio operator's register book I found out that he had failed to write down the messages and orders that came from the Head of TMEU, so he passed wrong information to the teams and Charley base in Sulaimanya in the first place.

Sulaimanya Branch Manager was not fully briefed by Chwarta radio operator on the messages that had come from the Head of TMEU, so interfered in the radio messages and he confused himself and the team involved in the mine accident.

In spite of the confusion caused by Sulaimanya Branch Manager, the radio communications were poor and the correct procedures were not used.

It comes out from the interview of Chwarta radio operator that the radio room was full of other members of staff i.e. Chwarta camp manager, Branch store man, Branch accountant, one local driver and the Sulaimanya branch Manager. This pile of people caused some confusion and an uncomfortable situation for the Chwarta Branch radio operator and did not allow him to do his job properly.

Chwarta radio operator should be disciplined for his negligence/lie in failing to write down the messages that came from the Head of TMEU properly and passing wrong ETA of the casualty to the hospital without any checks.

RECOMMENDATIONS AND ACTIONS TAKEN

All supervisory staff in general and the team leaders and their deputies must remind all deminers at all the times that they must not use excessive force on the prodder while investigating the source of investigation or while hand prodding.

All deminers should be made aware of the fact that if the injured de-miner had worn his helmet and pulled the visor down properly or had not been kneeling right over the mine his face would not have received blasts and fragments.

If the ground was extremely hard and the weather was hot and dry, then the person in charge of the site should consider the use of water to soften the ground.

Nobody should be allowed to enter any radio rooms in all operations bases, offices and branches except the authorised personnel and radio operators should be monitored, appraised and retrained as appropriate by their line mangers.

Radio operators should be allowed to do their job and nobody should be allowed to interfere or change any messages, unless they are in a direct violation of SOPS.

All radio operators should register all messages they have received/sent. I will introduce a format to be used by all radio operators in all NI operations bases and offices.

TNIEU should assess all operational supervisory staff on Radio Voice Procedures (RVP) and prepare a modular training on RVP for them if it is found to be necessary

Technical Operations Manager

Victim Report

Victim number: 451 **Name: Name removed**

Age: **Gender:** Male

Status: deminer **Fit for work:** not known

Compensation: not made available

Time to hospital: 1 hour 45 minutes

Protection issued: Frag jacket
Helmet
Short visor

Protection used: Frag jacket, Helmet

Summary of injuries:

INJURIES

minor Arms

severe Eyes

severe Face

severe Neck

AMPUTATION/LOSS

Eye

COMMENT

See medical report.

Medical report

The Technical Operations Manager reported:

After admission to OPD ward I examined the patient with the surgeon responsible and the following signs were found -

- He was fully conscious.
- Vital signs were normal.
- He had multiple small injuries of the whole face and anterior part of neck resulted from small fragments.
- A lacerated wound of chin measuring 2.5 cm with minimal bleeding, and another one of left side of neck l cm.

The left eye was severely injured by fragments and it was a ruptured eyeball with mild bleeding (lost eye).

First Aid Given,

1. 45 mg Pentazothin I.V
2. 3 mega PG I.V
3. 500 cc. R-L and DRS.

KURDISTAN REGION IRAQ

Health Forensic- medicine dept: Date: 17/06/00

I the undersigned did the medical examination of the person named [the Victim], aged *25 years, sex:* male on 12th June 2000 at *4:00 PM* according to the request of [excised] and I found the following:

1. The patient is fully conscious during the examination.

2. Presence of different foreign bodies in the cornea of Right eye.

3. Rupture of Left eyeball with leaking of aqueous solution.

4. The condition of Rl good for the time being and depends on the appearance of complications in the future

5. The condition of Lt. Eye is “lost eye”.

And I see the cause of these damages as -- *fragment injuries* -

I prepared this report and sent to *Hospital Police Station* by the request accompanied the patient.

Signed: *Opthalmologist*

Analysis

The primary cause of this accident is listed as a *“Field control inadequacy”* because the victim had his visor raised at the time and his error was not corrected. The group’s helmet visor is short and stands well away from the face, so it would not have to be raised much to allow fragments to enter. But for the fragments to have a straight path to both eyes implies that it was raised enough for the Victim to see out from beneath it.

There were significant communications failings identified in the internal investigation that are a management responsibility. It seems that several of those involved did not understand what they should do, so the secondary cause is listed as *“Inadequate training”*.

Related papers

The following is the demining group’s preliminary internal report, edited for anonymity.

FIRST LOOK REPORT MINE ACCIDENT

AHMADA RASH MINEFIELD DATED 12th JUNE 2000

On Monday 12th of June 00 while carrying out de-mining at Ahmada Rash minefield in the village of Badana in the district of Penjwen, Sulaimanya Governorate. an accident occurred at 13:25 Hrs resulting in the injury of one deminer. This report gives an initial outline of the events surrounding the accident - a more detailed report will be compiled once all staff involved have been interviewed.

GROUND:

The area is covered with long grass and it is relatively hard dry earth. The site of the accident was on flat part of the minefield 26 metres deep inside the second confirmatory breach. The safe lane where the accident took place was well marked and clearly denoted the cleared and uncleared area.

SITUATION:

The deminer who was injured was clearing a safe lane, using his prodder to investigate a source of a detector reading when a mine exploded. He suffered major blast injuries in his face and both eyes as well as both upper arms. His helmet visor was damaged from both sides (inside and outside); the straps of his visor were cut off due to the pressure of the mine explosion and allowed the fragments hit his face.

He was carried from a safe lane and was given initial First Aid by the both medics on site before being transferred to the Emergency Hospital in Sulaimanya where he is receiving surgical treatments.

CONCLUSION:

I have still to interview the deminer involved fully, however it is fairly obvious from the initial reports that whilst checking a source of the detector reading in the ground he carried out a signal reading investigation by the prodder and he initiated a VS-50 anti-personnel blast mine.

It is also clearly obvious from. the damage caused to his ballistic jacket that he was wearing it correctly. I'm still not clear too much about his ballistic helmet. With the injuries to his eyes, it would seem either-.

a) His visor was not fully down, or

b) The explosion wave caused a cut to his ballistic helmet straps and led the fragments hit his eyes and face or

c) He was kneeling right over the mine when the mine exploded or the mixture of two or three of the above possibilities together.

A full investigation report will follow, once it has been completed.

Signed: TOM, 13th June 00

NORTHERN IRAQ

I was at HQ office on 12th June 2000, when I was called by the radio operator at 13:40 PM saying that a mine accident had took place in BADANA field in Chwarta. And the ETA of the ambulance to Emergency hospital is after 20-25 min., so I went directly to the hospital to see the victim before admission. After 20 min. another call from the radio operator said that the ETA is after 80min. and not 20min.

After confirming the ETA, I requested the exact road, which will be taken to reach destination. and the answer was through Chwarta down to Sulaimanya. So I went towards Chwarta, to escort the victim, when I called OSCAR base to provide me the exact location of the ambulance, and he replied negative information.

At that time the team leader of Dary chia M/F interfered and said that definitely the ambulance will not come through this way otherwise they must have reached our location by now. And it was 02:35 PM,

So I decided to come back to Sulaimanya. When I met Sulaimanya. Branch Manager and TOM on the way back.

After reaching the hospital at 1500 hours, I received a call from the team saying that the ETA to Emergency hospital is after 10 min.

On the arrival of the victim I found the followings:

- the victim was fully conscious.
- The vital signs were all normal.
- No obvious breedings.
- Both eyes were dressed properly.
- IV drip was in place and open.

After admission to OPD ward I examined the patient with the surgeon responsible and the following signs were found -

- He was fully conscious.
- Vital signs were normal.

- He had multiple small injuries of the whole face and anterior part of neck resulted from small fragments.

- A lacerated wound of chin measuring 2.5 cm with minimal bleeding, and another one of left side of neck l cm.

The left eye was severely injured by fragments and it was a ruptured eyeball with mild bleeding (lost eye).

Statements

Statements from individuals involved in the accident are reproduced below (edited for anonymity).

Team Leader: Date: 13/06/2000

I am the above-mentioned person, team leader of team 1 in Sulaimanya governorate.

On 5/3/2000 we started clearance at Ahmada Rash minefield in Badana village / Penjween district. The types of mines in the minefield are VS50 and V-69.

On 12/6/2000 as on any other day we started working, the deputy team leader with a sub team and a medic went to carry out a COR task near the minefield from 8:00 to 12-00. At about 10-00 I checked sub teams 5. 6 & 7. Their work was good with no problems. Exactly at 1 -00 I contacted my deputy, to come to the high place opposite the minefield so as to observe the sub teams on my side while I have my lunch. It was at 13:20 that the No.2 of the injured de-miner, informed me that they have located a VS-50 without detonator. Then I deemed it better to go to the minefield. It was at 13:23 that the accident happened and at that time I ran quickly to the position of the stretcher.

The No.2 deminer and I myself brought the injured deminer to the two medics. They carried out First Aid about 15-20m away from the demarcation. I am not sure how long all this took as I went away from them to contact Dary Chia minefield to pass the "Pan Pan Pan" messages and other procedures. After a while Dary Chia informed me to take the Schiebel to [a name] and the helmet and the jacket to the TMEU. As this is against the procedures that is why I confirmed that this not the first accident and the accident equipment should not be touched. But again he confirmed that from Oscar Base they repeated the message to take the Schiebel to Chwarta camp and the jacket and the helmet to the TMEU. There they informed me that the TOM was on his way to the accident site and I returned to the minefield with the supervisor and contacted the TOM in order to carry out the investigation into the accident.

Signed:13/6/2000

Questions to the Team leader

Question 1: Where were you when the accident happened?

Answer: At that time I was in the rest area, (deminer No.2 observer) told me that they had located a mine and I deemed it better to go to [the Victim]. But immediately after this the explosion was heard.

Question 2: On hearing the explosion what did you do?

Answer: First of all I went to the stretcher and I took the stretcher to the injured deminer and with the No.2 we took him out of the minefield and took him to the two medics.

Question 3: What action did the medics carry out?

Answer: Frankly when I brought the injured deminer to the medics I thought that they might not be in need of me. I left them and returned to my deputy to supervise the team and the collection of the equipment and to go to a high place so as to contact Dary Chia minefield to send the accident message.

Question 4: What else?

Answer: When I contacted the team leader of the Dary Chia minefield I told him that an accident had happened. At that time he told me that the ambulance will go to Sulaimanya and I told him let it go. Then after this I started talking with team leader at Dary Chia minefield. First he informed me to leave the working site and to send all the team back to Sulaimanya, and I told him that all the team members are from Penjwen so why send them to Sulaimanya. He said that the Oscar base said let the team members go to their homes in Penjween and you too, you have to come back to Sulaimanya. I told him OK I will send the team back and I will stay in the minefield till the arrival of the investigator. He said no, the message says bring back the helmet and the jacket to TMEU and to bring the Schiebel back to the detector technician in Sulaimanya Branch. I was concerned about this message because this is not the first time that such accidents have happened. I knew very well that following an accident you should not touch any thing that was involved in the accident and every thing must stay in its original place till the arrival of the investigating group to the site and explaining the matter. Then all the stuff will be taken out. I confirmed with him 2-3 times and told him that the accident equipment should not be touched. He said that today TMEU will not come there, so bring back the helmet and the jacket to TMEU and bring the Schiebel back too. I came back to Chwarta and on my arrival to Chwarta TOM told me to go back to the minefield so I went back and met TOM there.

Question 5: Did you use the format of the accident message?

Answer: No.

Question 6: At the time when you were busy with sending the accident message, your deputy, what did he do?

Answer: After the explosion straightaway [My deputy] blew the accident whistle and took all the sub teams out from the minefield and told them to close all the safe lanes.

Question 7: Are aware that as per SOPs no one should touch the equipment that was involved in the accident?

Answer: Yes, I knew it very well. That's why I confirmed with the Team Leader for 3 times and he said that from Oscar base they said that to bring back everything because today no one will come there and tomorrow TMEU will come for the investigation. And he said I have to be available in the minefield at 8-00 a.m.

Question 8: Did you know who was the person that gave messages from Oscar base?

Answer: No, he said it from Oscar base from Chwarta.

Question 9: How many times had you visited that safe lane on the day of the accident?

Answer: Only in the morning I visited it, because my deputy went to carry out a COR task, and I was standing in that place where all the sub teams were visible till he came back.

Question 10: When your deputy was not there who assisted you as deminer No. 1?

Answer: No one, because I myself could control all the sub teams.

Question 11: Has [The Victim] or the sub team he worked with ever been informed by you of any breaches or mistake done by them?

Answer: [The Victim's] sub team was a typical sub team among the sub teams under my control.

Question 12: How did you conduct the change over with your deputy?

Answer: In fact the minefield itself is two different parts. He supervises one part and I supervise the other one. During the rest time we 'II inform each other and one of us will go to a high place where all the sub teams are visible.

Question 13: Why do you think the accident happened?

Answer: I don't know what to say. It is fate that the mine was upright and because of the hardness of the ground, or the hot weather he may have used the prodder with force.

Question 14: In addition to this the injured deminer was using protective equipment, yet the casualty's face was injured severely. What is your opinion about this?

Answer: I am totally sure that this deminer was prodding right over the mine and he did not take the proper safety distance and hit the prodder to the mine.

Question 15: Do you have anything else to add?

Answer: Nothing, thanks.

Question 16: According to your experience have you seen any deminer using the prodder with excessive pressure?

Answer: Yes. cases of using the prodder with pressure have increased. I always informed them that they have to put an end for this.

Signed: MAT Team Leader

Deputy Team Leader: Date: 12/06/2000

After 13:00 the team leader called me to help him so as to have his lunch for, as I was between the sub teams 5 & 6 all the sub teams were not visible from that location. When he called he said to come to the high place so as to see the sub teams on both sides while I have my lunch . I went to the location identified by him from which all the sub teams were visible except one sub team who were in the dead ground. I was in the high place when the accident happened and immediately after I blew a long accident whistle and intended to go to the accident site, but the Team Leader and the Doctor responded so quickly. I was aware that they reached the site quickly and, with the No.2, took the injured deminer out.

Then I called to the other sub teams that a mine had exploded. I told the subteams that the casualty's injuries is not severe, so as not to confuse those sub-teams whom are far away from the explosion site (accident site). Certainly I called all the sub teams to close the safe lanes and not to leave any of the working equipment, especially those sub teams who had mines and informed them to take them out.

Very soon I sent two persons with the same blood group to the ambulance. I let away those who were especially near the site and prepared them in a group with 4 persons to transfer the injured deminer.

The team leader, informed me to prepare the casualty's blood group and his CIN so as to send the accident message, i.e. for he himself to send the accident message, because he could speak Kurdish through Dary Chia minefield and he was able to explain the accident very accurately. I was aware that he confirmed several times about moving the equipment involved in the accident has never been touched before, how can I touch them? Two or three times they said to bring the equipment involved in the accident back.

Signed.

Questions to Deputy team leader

Question 1: At what time did you start the work on the morning of the day of the accident?

Answer: As the other days we started the work at 08:00 a.m.

Question 2: Did you brief the team on the morning of the day of the accident?

Answer: Yes, and on each day we will do this.

Question 3: Where were you prior to the accident and what you were doing?

Answer: At 1300hrs the Team Leader called me and asked where I was. I said that I was between sub teams 5&6. He said, "Come to the high place so that I can have my lunch." When I came to the high place I saw all the sub teams. On my arrival to the high place I told the Team Leader to go to the rest area. At 13:22 hrs the accident occurred. At that time the Team Leader was under the shade and I was in the high place.

Question 4: On hearing the explosion what did you do?

Answer: When the bang was heard I turned around and whistled straightaway and intended to run to the accident site. But the Team Leader was arriving with the stretcher at the accident site. When I saw them busy with this action I returned to the high place to inform the other sub teams about the accident and I told them to close their safe lanes and to take their equipment out.

Question 5: When the Team Leader and the No.2 (observer) of the injured deminer went to the injured deminer, what did they do?

Answer: They took the injured deminer to the medics, who opened their bags. After all the deminers came out from the minefield I went to the Team Leader and he told me to go and prepare two persons with the same blood group as the injured deminer.

Question 6: What else?

Answer: After preparing the two persons with the same blood group as the casualty and preparing casualty's CIN, four deminers lifted him and took him into the ambulance. After that [the Team Leader] tried to contact Dary Chia minefield to send the accident message.

Question 7: Did you know, as a deputy of the team leader that the equipment involved in the accident should not be touched until the arrival of investigation team?

Answer: In all the courses we have been taught and confirmed about this and it has been the subject of examination so many times. We were very sure that we should not touch the accident equipment in any way, because if it is not touched the cause of the accident could be identified very easily.

Question 8: Why and how do think the accident happened?

Answer: I believe he may have used the prodder in a wrong way and he may have pressurised it more than required as the ground is too hard and the roots of the vegetation made the work more difficult.

Question 9: What about his facial injuries?

Answer: The reason is his fault. I can't say that he didn't pull down the visor and as for the helmets they loosen however hard you try to tighten them for the chin straps are not in place. I think his helmet was loose.

Question 10: How did you arrange the rest time with your team leader?

Answer: We only take one rest for lunch and this nearly at 13:00. The one who is in the rest area cannot see any of the teams.

Question 11: Has it ever happened that the No.2 gave instructions to the No.1 and they didn't adopt it and then the No. 2 complained to you?

Answer: No, they all have been told that if the No.1 makes a mistake so the No.2 is more responsible for this mistake, because if he saw it and keep silent he will be guilty.

Question 12: Have you ever seen a deminer using the prodder with pressure, or lifting up the visor, or opening the jacket?

Answer: I only saw the misuse of the prodder, but I haven't seen anyone to lift up the visor or open the jacket.

Signed.

Deminer No.2: Date: 13/06/2000

I, the above-mentioned person. am a deminer in demining team 1 in Badana minefield. On the day of the accident our sub team didn't work in our previous location because our breach had been completed. On the decision of the team leader, we came to the location of sub team 2 in order to work on this breach, as this sub team went with the deputy of the team leader to carry out a demolition. As normal we started clearance at the Badana minefield at 08:00 a.m. We didn't have any problems up to the moment of the accident. Some minutes before this I had informed the team leader of locating a VS-50 mine which had no detonator. I was standing at my safety distance wearing working clothes. My No. 1 used the Schiebel

again after locating the VS-50 mine without detonator. He sat normally and started prodding. Suddenly a medium explosion sound was heard and [the Victim] was lying in the in the next cleared area of the minefield and I shouted "Accident... accident!" A long whistle was blown. Immediately after this the team leader reached him with a stretcher. We put him on the stretcher and took him to the medic's site. Both of the medics opened their bags and they were ready and started cleaning, examining him and dressing his wound. [One] took the helmet off his head, then they provided him with IV fluid and gave him an injection after that. Next they separated two persons who had the same blood group and put them in the ambulance and brought him to Sulaimanya with the both medics. Then a call was made for us to go back to Penjween and for us to be ready tomorrow at the working hour, but after the accident the Team Leader told us not to be near around. This is what I have seen for your information.

Signed.

Questions to Deminer No.2

Question 1: How long had [the Victim] been working on the day of the accident?

Answer: That day he worked for three hours (three changeovers), the accident happened at the end of the last changeover.

Question 2: At what time did the accident happen?

Answer. It was about 13:20

Question 3: Can you describe for me what happened at the time of the accident?

Answer: Before the accident [the Victim] located a mine that had no detonator. I informed [the Team Leader] about it, then he handled the Schiebel and started working again. He laid the Schiebel down and started prodding. All this took place three minutes after locating the previous mine that was without a detonator. Immediately after an explosion occurred, the sound of which was less than a VS-50, I shouted 'accident, accident', and after 1-2 minutes the Team Leader with a stretcher reached me and together we put him on the stretcher and took him to the medic bag.

Question 4: When [the Victim] located the mine (with no detonator) and after informing the team leader and his deputy about it, did any of them come to see its location?

Answer: The Team Leader came for this purpose, but because of the accident he couldn't do it.

Question 5: What did [the Victim] do prior to the accident and how was he working?

Answer: At that time he was busy with prodding and he was kneeling, he was wearing every thing the helmet and the jacket, suddenly the explosion happened.

Question 6: Are you sure that the casualty was wearing all his protective equipment accurately?

Answer: He was wearing the equipment very accurately. [The Victim] was even one those who didn't accept or allow any one even up to 50 m away from the minefield to be without a helmet and jacket. Even before and after the explosion his helmet and his visor were pulled down.

Question 7: Where did you take him on the stretcher?

Answer: Near the explosion site in a previous cleared area we put him on the stretcher and we took his helmet and jacket off.

Question 8: Where did you take his helmet and jacket off?

Answer: Near the medic site. The team leader took them off.

Question 9: Were any medics there during the accident, if so who? What did they do?

Answer: When we took him, straightway [two medics] were there and opened their medical pack and started cleaning his face and examining his body. One Medic even opened his shirt and started examining his chest. They provided him with IV fluid and gave him an injection.

Question 10: When the medics treated the casualty did they provide him with any IV fluid?

Answer: Yes, before they put him in the ambulance, they gave him cannula and IV fluid.

Question 11: Who gave the IV fluid?

Answer: I don't know who exactly it was.

Question 12: Who went with the casualty to Sulaimanya and Emergency hospital?

Answer: They asked whose blood group is A+**,** right after they brought [a deminer] and [another deminer] went as an assistant

Question 13: That day (the accident day) how many mines had you located in the area you have cleared, up to the moment of the accident?

Answer: Yes, prior to this we have located only one mine without a detonator.

Question 14: Who located the mine?

Answer: Within three minutes prior to the accident [the Victim] located the mine.

Question 15: Explain the ground condition for me?

Answer: The ground rises gradually and contains long and thick vegetation, besides the root of the vegetation deepen in the ground. even we have cut the vegetation in two steps. We checked it with the detector and cut the vegetation, after then we pulled the roots out. The ground is very hard.

Question 16: How often had you changed over?

Answer: Every 30 minutes we changed over.

Question 17: Did you give any instructions to [the Victim] regarding the work and correcting his mistakes on the day of the accident?

Answer: The way of cutting the vegetation, the correct kneeling position and other things.

Question 18: As you mentioned, after [the Victim] located the mine that had no detonator, he started clearance straightway. Did he cut the vegetation or did he start clearance immediately after?

Answer: He cut the vegetation and then he started clearance.

Question 19: Do you have anything else to add?

Answer. Nothing else.

Signed.

Deminer No.3 (The third in the three-man team)

On 12/06/2000 at 8:00 a.m. as on other normal working days we started our work according to all the safety rules.

At 13:20 Kak Hazhar told Kak Kawa that they had located a VS-50 mine without detonator. After locating the mine the Team Leader intended to go to the sub team's site. Suddenly the sound of an explosion was heard which was at 13:23 in the breach in which we were working. The Team Leader ran to the stretcher so as to recover the injured deminer with the No.2. At that time the Deputy Team Leader who was on the opposite hill blew a long whistle and told the deminers to close the safe lanes and to take the equipment out. Then the Team Leader and a deminer took the injured deminer out to the medic's bag so as to provide him with First Aid. After carrying out First Aid on the injured deminer, he was transferred to the ambulance. Two persons with the same blood group as the injured deminer went with the two medics and another deminer to help them and two ambulances went to the hospital.

Question to deminer No.3:

Question 1: What was done when the accident happened?

Answer: I was in the rest area and I put on my jacket and visor straightaway and went to the safe lane's site, but the Team Leader and a deminer took the casualty out and they said, "We have arranged it".

Question 2: How long have you worked with [the Victim]?

Answer: I have been with him in one sub team from the beginning of this year's work up to date. Since then he has been my No.2 and I have never been his No. 2.

Question 3: As far as you are aware did any team leader give a warning to [the Victim] for not wearing his protective equipment correctly?

Answer: As far as I am aware he has not been given any warnings this year or the observers didn't observe any breaches of the safety rules by him.

Question 4: When they brought the casualty to the medics, what did the medics do?

Answer: We went to the medics and they prepared their equipment and then they carried out the First Aid procedures.

Question 5: Can tell me what you did?

Answer: When we went there the medics told us not to make it too crowded, but they laid out all their required equipment. It seems that I was confused as this is the first time for me to see a mine accident since the beginning of the work up to date.

Question 6: Did you see if [the Victim] had been provided with cannula?

Answer: Yes, he has been provided with cannula and IV fluid.

Question 7: When the accident happened what did the Team Leader and his Deputy do?

Answer: The Team Leader was with us in the rest area and the Deputy was in the opposite high place.

Question 8: Explain to me what the Dl and the TL did during the accident and the recovery of the casualty?

Answer: The Team Leader was in the rest area and intended to go to visit the sub team that located the VS-50 mine which had no detonator. At the time the explosion was heard, we were in the rest area. When the Team Leader heard the explosion he ran straightaway to the stretcher and the Deputy started whistling in the opposite high place. Team Leader took out the injured deminer and the Deputy was busy with searching for the blood group. Team Leader moved aside to contact Oscar base to inform them about the accident. Deputy prepared the personnel and searched for the blood group. Team Leader was still busy with contacting Oscar base - they told him to bring all the equipment back to the camp, even the casualty's equipment, because they said no one will visit the accident site.

Question 9: Have you been told that you should not touch anything during an accident and everything should be left as it is till the arrival of the investigating team?

Answer: This year we didn't have any accident but in the previous years when an accident occurred they said not to touch anything till the arrival of the investigator to the site.

Question 10: So this means all of you knew that you should not touch any thing?

Answer: Yes, we all knew this even the Team Leader confirmed this. But they insisted from Oscar base that nothing should be left there, as today no one will come to investigate.

Question 11: Has any one touched the equipment involved in the accident?

Answer: No, the Team Leader said no one must touch these things, because the investigating committee will come to look at the accident site and this will show how the accident happened.

Question 12: Did you try to close the safe lane as the third person?

Answer: No, because I myself was somehow confused.

Question 13: Do you have anything else to add?

Answer: Nothing. Just wishing for a quick recovery for [the Victim] and success for all the deminers.

Signed.

The Victim

Question 1: At what time did you start the work, on the morning of the day of the accident?

Answer: At 8-00 a.m.

Question 2: On the day when the accident occurred how long did you work?

Answer: From 8-00 a.m. up to the moment of the accident .

Question 3: At what time did the accident happen?

Answer: At 13:25 p.m.

Question 4: What happened before the accident?

Answer: I was No. 1. I worked for a while, then I started investigation with the detector and encountered a high reading. When I investigated the source of the reading with the prodder it was found to be a VS-50 mine without a detonator. I gave the mine to [Deminer No.2] who informed the team leader about it. After then I started clearance using Schiebel detector. After a while I encountered another reading and I laid the detector down wanting to Investigate it. Just with the first hit of the prodder the mine functioned.

Question 5: Was the mine buried or on surface?

Answer: It was buried. I didn't see It.

Question 6: How were you prior to the mine explosion?

Answer: I had my jacket closed: my visor pulled down and was sitting correctly when the mine functioned and threw me back a distance.

Question 7- What happened next when the explosion threw you back?

Answer: [Deminer No.2] and others came to me and looked at my face, then they put me on the stretcher and took me to the medics. They treated me and put me in the ambulance. They consoled me too much and said that thanks be to God your eyes are OK.

Question 8: Where did they take off your visor and jacket?

Answer: Near the stretcher.

Question 9: Why do you think the accident happened?

Answer: What to say I don't know. I don't know any reason. I worked as per the safety rules and when I first hit the prodder the mine exploded straight away, then I don't know. I don't know how it happened?

Question 10: How many mines were located by your sub team on the day of the accident from the start of work at 8-00 a.m. up until the Moment of the accident and in which configuration they were they?

Answer: We located only one VS-50 mine without a detonator. I located it.

Question 11: In which configuration are the mines in that minefield?

Answer: Most of the mines are buried without detonators and even covered with three-fingers depth of soil under the ground.

Question 12: Explain to me what the medics did for you?

Answer: They did what is required for me, examining my heart, pulse, providing cannula and everything.

Question 13: Where did they put the cannula and the IV fluid for you?

Answer: At the minefield and other two persons were with me.

Question 14: On your way to Sulaimanya did you face any transportation problems?

Answer: No.

Question 15: Did the team leader and his deputy brief you on safety on the day of the accident and on the previous days?

Answer: Yes, particularly because the local people touched the minefield daily. They briefed us on safety and told us to look at our safe lanes daily.

Question 16: Did your No.2 instruct you prior to the accident?

Answer: Yes, he told me that the high reading might be a mine (the one that exploded).

Question 17: If we check the inside of your the visor we will see some fragments had hit it. Why do you think is the reason for this?

Answer: I think this may be because the explosion threw me or may be I prodded too close to the mine.

Question 18: Do you have anything else to add?

Answer: Nothing.

Signed.

Medic: Date: 13/06/2000

On 12/6/2000 at Ahmada Rash (Kola Sutawi) minefield in Badana village as on the other days normal work carried on by demining team 1 up to 13:20 p.m. Suddenly a bang of a mine explosion was heard. I will inform you of the following points:

From the first day of our working we agreed to take the medical responsibility of the team with no difference between the sub teams and in the case of any accident we should co-operate as required.

We were near each other on the day and the moment of the accident and we ran when the boom was heard to the medic's site. The team leader very quickly took the stretcher to the safe lane and at that time [the Victim], as per the adopted rule, opened our bags and laid the oilcloth, which is for medical equipment, and we prepared the equipment. The Team Leader took the responsibility of dressing his wound and I provided him with IV fluid, anti-pain and anti-swelling injection. First Aid was carried out on the patient and within seven minutes he was transferred to the ambulance by four persons. Two deminers with the same blood group and a spare ambulance with both of us went to the Sulaimanya Emergency hospital. On our way we examined his life signs. In Said Sadlq we tried repeatedly to contact Base and [the Doctor] but we didn't receive any reply. When we passed Arbat we received the reply to our contact and informed [the Doctor] that after 10 minutes we would reach Emergency hospital and that our patient was well but had facial injuries. I don't have anything else to say.

Regards: Signed.

Radio Operator

I received the following messages from Oscar base. L passed them to the team leader-.

1 - Tell the TL to close the safe lane and not to touch the site.

2- Bring the Schiebel back to the Chwarta camp.

3- The TL asks what he is to do?

The reply-. let them collect the equipment and let all the team members go back to Sulaimanya.

4- TL says: why are all these persons to be brought to the Office and this is not the first time that an accident has taken place. Most of the deminers are from Penjween so why not let them go back to their families so that they should not feel worried about them.

5- The reply (after waiting for a while) he says - OK let them go back to their families.

6- The TL asked what should he do with the injured deminer's equipment.

The reply: - bring the helmet and the jacket back to Sulaimanya Office.

7- The TL asked what should he do now

The reply: go back to Chwarta

Signed