DDAS Accident Report

Accident details

Report date:	28/12/2007	**Accident number:**	450
Accident time:	10:00	**Accident Date:**	05/11/2006
Where it occurred:	Task # 130, Good Neighbourhood project, Hassankhail village, Bagram district, Parwan province	**Country:**	Afghanistan
Primary cause:	Field control inadequacy (?)	**Secondary cause:**	Management/control inadequacy (?)
Class:	Excavation accident	**Date of main report:**	19/12/2006
ID original source:	OPS127/464-06	**Name of source:**	UNMACA
Organisation:	[Name removed]		
Mine/device:	PMN-2 AP blast	**Ground condition:**	dry/dusty soft
Date record created:	28/12/2007	**Date last modified:**	28/12/2007
No of victims:	1	**No of documents:**	3

Map details

Longitude:		**Latitude:**	
Alt. coord. system:	Not recorded	**Coordinates fixed by:**	
Map east:		**Map north:**	
Map scale:		**Map series:**	
Map edition:		**Map sheet:**	
Map name:			

Accident Notes

inadequate training (?)

squatting/kneeling to excavate (?)

inconsistent statements (?)

inadequate training (?)

inadequate equipment (?)

Accident report

The report of this accident was made available in August 2007 as a PDF file. Its conversion to a text file for editing means that some of the formatting has been lost. The substance of the BoI report is reproduced below, edited for anonymity. The original PDF file is held on record.

Demining Investigation Report

Device was detonated while excavating. The deminer did not mark the signal by reading marker and excavated the signal by improper hand tool and worked on top of the signal.

History of the Minefield:

MF AF/0308/01653/130 locates in Hasan Khil village, Bagram district, Perwan province. This is a part of impact survey ID-3 and SHA-1, which has been reported by ALIS as medium impacted community. The task land type is agricultural. At first time Anti Personnel (AP) mines were planted in this area by Russians forces in 1985. This area was also front line between Northern Alliance forces and Taliban during the years 1997 to 2001 as was contaminated by landmines for the second during that period of time.

Total size of the MF is 25,575 sqm. [Demining group] MCT- 31 has been deployed for clearance of this task by which 2,700 sqm area has been cleared, 7 PMN-02 and 10 UXO have been detected till the accident day. This is one of tasks of Good Neighbourhood Project.

Good Neighbourhood Project: This area belongs to Hassan Khil village and is a part of Bagram Airbase security belt. The people of Hassan Khil and Gujur Khil villages requested the American Military Forces of Bagram Airbase for clearance of this area. As a result of the villagers' request the American forces contracted clearance of this area with [Demining group] under the name of Good Neighbourhood Project. Clearance of this project is funded by Defence Ministry of America and will be completed in six months. Total size of this project has been estimated 70,455 sqm and its clearance has been stared on 03 Oct 2006. The following assets have been deployed for clearance of this area:

1- [Demining group] MCT-31, 32, MDU-10

2- [2nd Demining group] MCT-4, 12

3- [3rd Demining group] MDG-30

In this area about 60 accidents on locals and enormous accidents on animals have happened. This area is a threat for the people of Hassan Khil and Gujur Khil villages. The aim of clearance in this area is to make safe the life of the people of the two villages.

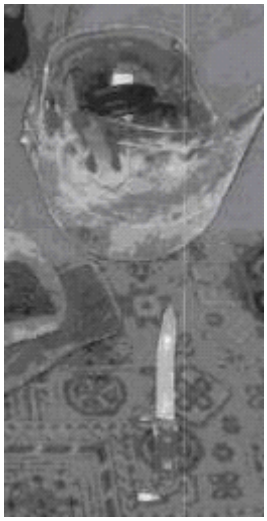
Description of the incident/accident

On 05 November 2006 at 10:00 hrs a PMN-2 mine detonated on [the Victim], a deminer of section-3, [Demining group] MCT-31 while he was working on a located signal.

Picture of the accident site, showing shallow excavation.

The deminer was working in squatting position by portable shovel and was fully dressed with PPE while the accident happened. During 10 minutes the three steps of medical first aid was applied on the victim by the team nurse in the site then he was shifted at 10:15 hrs to the Bagram Airbase Hospital. Transfer of the victim from site to the hospital took 10 minutes and at 10:25 the victim was admitted to the hospital. For the time being the patient is under treatment in Miwand Governmental Hospital. The victim has just one trauma in his right hand. His condition is normal right now.

Description of equipment damage: the victim's bayonet was bent.



The picture shows an AK bayonet and dirty visor.

Site conditions (at the time of the incident/accident): the terrain was flat and open, the soil was soft and dry, the weather was clear and calm, vegetation was light.

[From IMSMA form: the team had been working at the site from 4th October 2006. Working hours started at 07:00 and finished at 13:00 with a break every 30 minutes. The CIEA Mil D1 metal-detector was used. The hand-tool was a Russian made bayonet. PPE was used correctly. The Victim was last on leave from 21st October to 1st November 2006.]

Medical reaction time: the paramedic was on site one minute after the accident. The casualty was in the ambulance after 15 minutes. The ambulance took ten minutes to reach the hospital (10 km away). Total time: 26 minutes.

Conclusion

Negative Points:

1. The deminer has not maintained the safety excavation distance while he was excavating the located signal (exploded mine) and has started excavation from top of the signal, from this we can say that reading points have not been used for marking of the signal.
2. Observing the accident point made obvious that depth of the signal was near the ground surface and excavation depth of the signal (exploded mine) was reduced from 13 cm to 4 cm.
3. When we asked about bayonet of the deminer, they showed us a Russian made bent bayonet, which its use has been prohibited. They pretended that the explosion has bent the bayonet. If the deminer had worked with that bayonet either his right hand was cut or seriously injured, but from injuries of the deminer hand we can say that the deminer has excavated the signal (exploded mine) by portable shovel not by the bayonet.
4. The deminer was working carelessly with portable shovel on the signal before detonation of mine. The team leader and the relevant section leader were not controlling the deminer to stop him from carrying out of wrong and incorrect work procedure.
5. As we inspected the task cleared area we saw that most located signals had been excavated by portable shovels, the required clearance depths and safety excavation distances of the located signals had not been maintained which shows weakness in the method of command and control and deficit in training of the team personnel.
6. Internal QA/QC was not conducted properly.

[The photograph shows an investigator at the site – not wearing PPE.]

Positive Points:

1. The deminer was dressed with fully Personnel Protective Equipments (PPE), so, his body has not received any serious injury.
2. The deminer was working in squatting position while the mine exploded.

Recommendations

1. A revision course is to be held for the team members.
2. The deminers should use reading points for marking of the located signals, maintain the required clearance depth and safety excavation distance while excavating the located signals and the team command group should control them.
3. The team command group should strictly control the deminers to work in accordance with the procedure.
4. The deminers should not work with the bayonets that its use has been prohibited; they should work with the standard bayonets.
5. The Internal QA/QC conducting and recording systems should be improved in the team level and NGO level.
6. The team deminers should not work on the located signals by portable shovels, which is against the set procedure.

Victim Report

Victim number:	598	**Name:**	[Name removed]
Age:		**Gender:**	Male
Status:	deminer	**Fit for work:**	not known
Compensation:	Not made available	**Time to hospital:**	26 minutes
Protection issued:	Frontal apron Long visor	**Protection used:**	Frontal apron, Long visor

Summary of injuries:

minor Hearing

severe Hand

COMMENT: See Medical report.

Medical report

No formal medical report was made available. Severe injury is inferred from the fact that the victim was retained in hospital (and moved to a second hospital).

The Paramedic reported: “As per the first Aid rule and regulation I took under steps. 1. Assessment of trauma. 2. Stop the bleeding. 3. I gave him IV canola. 4. I gave him one syringe Diclofenac analgesic. 5. To heat the patient we used a blanket and then within 15 minutes we transferred the patient to the doctor's tent by statures.”

The IMSMA form recorded a hearing loss.

Related papers

Letter dated: December 19th 2006, from Acting Chief of Operations UNMACA, Kabul

Subject: Follow up action on demining accident happened to the deminer of [Demining group] MCT-31 in task # 130 of Good Neighbourhood project in Hassankhail village, Bagram district of Parwan province.

Reference: Demining investigation report File: OPS127/464-06 dated: November 29, 2006, of UN-AMAC Kabul.

A demining accident happened on November 05, 2006, at 10:00 in task # 130 of Good Neighbourhood project in Hassankhail village, Bagram district of Parwan province, a PMN-2 mine exploded on [the Victim] the deminer of section-3, MCT-31 of [Demining group], causing injury to his right hand fingers.

Contributor factors to the accident:

- Poor management of the task/poor supervision, command and control: as the cleared portion of the task has been inspected by investigation team, most located signals were visible and evident of being cleared/excavated with small folding shovel i.e. the clearance depth and the safety excavating distance (excavation of signals from second reading marker) was not maintained, but when the team command group was asked about the excavation tool, they showed the Russian made small bayonets which were blunt and very short and out of use and this issue has not been considered by command group. It is assumed and as seems from the observation of accident point the deminer was using folding shovel for the excavation of last signal (exploded mine) but he was not controlled and corrected by command group.
- Lack of training: excavating signals directly from the pinpointed spot and use of not approved tool for the excavation show that the team needs training. Lack of internal QA/QC to reveal the weaknesses and recommend the field of training.
- Carelessness/not using proper tools: the deminer was not using approved prodding/excavating tool and he was careless about his activities.

The investigation report added two positive points, so it is worth to be mentioned and use as lesson learned in our demining operations as:

- While the accident happened, the deminer was in squatting position.
- The deminer was fully dressed with PPE, so his body remained unharmed from serious injuries.

Recommendations:

7. The [Demining group] operations should ensure that a proper management of the task and approved tools have been using for the clearance of minefields.
8. The command group of the team should pay full attention to the activities carried out by each individual deminer during the clearance operations and ensure the a) proper practicing of safety measures, b) proper demining tools are being used and c) practicing standard and safe procedures according to SOPs.
9. A refresher training to be held for the team members with focus on prodding, excavation, method and standard tools.
10. Disciplinary action to be taken against command group of mentioned team.

The feedback of [Demining group] is needed as NL than the end of December 2006.

Cover letter: investigation Report

Attached please find investigation report along with its supporting documents of Demining Accident CA-90 happened on [the Victim] deminer of [Demining group] MCT-31 at MF 130 of Good Neighbourhood Project in Hassan Khil village, Bagram district, Perwan province on 05 November 2006. [Name removed] QM Assistant and [Name removed] OPS Assistant for AMAC, Kabul carried out the investigation.

Findings and recommendations are mentioned in this report, forwarded for your information and further action.

STATEMENTS

Statement and Witness Report

Team Leader (experienced since June 98).

Q. No. 01: Please explain how the accident happened.

A. Q. No. 01: To answer your question I would like to state on 05.11.06 it was around 10:00 hrs in the morning that a mine exploded to [the Victim]. At that time I was located in section No.01 and [name removed] the assistant team leader had the responsibility of that area. The party who the accident happened on was supervised by [name removed] the acting section leader of the 3rd section. The assistant team leader was also controlling the area. Mr. [name removed] has already resigned from his post. Mr. [name removed] was working as acting section leader who has taken TLC course. The area was surveyed by [Demining group] and the project officer had given us the brief of the area. As the mines in the area are not as a belt and in sequence it is a little bit difficult to detect the mine easily and the fault of the deminer is that the bayonet has touched the plate of the mine. Since the previous section leader has resigned we have send his resignation letter by the supervisor [name removed] but still one has selected as section leader yet.

Statement and Witness Report 2

Assistant Team Leader (experienced since December 1992).

Q. No. 01: Please explain your observation about the accident how it happened?

A.Q.No. 01: While the accident happened I was busy to control section No.03 and section No.04. Prior to the accident while I looked to the mentioned deminer he was fully equipped with the PPE, Helmet and visor. At the moment while the accident occurred I was busy to check the section No.04 suddenly I heard the explosion. I send the doctor and asked the team to go to a safe area, then I helped the doctor to take the patient to the doctor tent. Besides this then I informed the team leader.

Q. No. 02: While the accident happened how far were you from the accident point?

A. Q. No.02: While the accident happened I was located about 70 mtrs far away from the accident point and controlling sections No.03 and 04.

Q. No.03: In your opinion which fault caused the accident?

A.Q.No.03: In my opinion the accident point had some grasses and he has brought pressure to the bayonet and this pressure has caused the accident.

Q.No.04: The deminer who the accident happened on to which party and section was related?

A.Q.No.04: He was in 07 Party and section No. 03.

Q.No.05: Most of the area which was cleared the depth of the clearance were less than 13 Cm and in some places the excavation of started from the centre of the signal and in some where we have observed the indication of shovel use hope you clarify this.

A.Q. No. 05: The mentioned deminer was working by the bayonet and in the area where Backhoe has worked he removed the extra soils by the shovel which [Demining group] has provided. Where the fragments depths are less than one or two centimetres of course the depth will be less and we remove the signal.

Statement and Witness Report 3

Paramedic (working in demining since 1991)

Q.No.01: How long far was your distance from the accident point?

A.to Q.No 01: I as a medic of the team was located in the clear area at the distance of 70 meters straight to the third section.

Q.No. 02: Which steps of the first aid you have taken? if you explain them clearly?

A. Q. No 02: As per the first Aid rule and regulation I took under steps. 1. Assessment of trauma. 2. Stop the bleeding. 3. I gave him IV canola. 4. I gave him one syringe Diclofenac analgesic. 5. To heat the patient we used a blanket and then within 15 minutes we transferred the patient to the doctor's tent by statures.

Q.No. 03: Which parts of the patient body had got injured if you please explain it?

A to Q. No. 03: While we checked the patient body only there was a laceration on the right hand index.

Q.No. 04: How long does it take to do the first Aid help?

A.Q.No. 04: I would like to tell you that I and [name removed] completed the first Aid help in three step within 10 to 15 minutes.

Q. No. 05: To which hospital did you take the patient, how long was the distance of the hospital from the accident area, how long does it take that you shifted the patient from the field to the hospital?

A. Q. No.05: After giving the first Aid help we transferred the patient to the American Hospital in Bagram Air port and the distance of 3 Km and it took 10 minutes.

Q.No. 06: Where the patient is right now and how is his situation?

A. Q.No. 06: For the time being the patient is in one of the governmental hospital which is called Maiwand Hospital and his situation is good and ok.

Statement and Witness Report 4

Section Leader (four years experience).

Q. No. 01: You as a section leader while the accident happened where were you located and what were you doing and how the accident happened?

A. Q. No. 01: Prior to the accident as a section leader I was busy to observe two sections section No.03 and section No.04. While the accident happened I was controlling section No.04.

Q.No.02: In your opinion why the accident happened and which equipment does the deminer used?

A.Q.No. 02: In my opinion the Assistant team leader 05 minutes prior to the accident observed the deminer and gave him some advice and he had all the working equipment and he was working as normal by the bayonet. Also, at that time he was not careless.

Q. No.03: Who has planted the mine in the area and when and who has request to clear the area?

A.Q.No 03: The Russian soldiers had laid the mine at that time. The American Army has requested the clearance and [Demining group] is clearing it now.

Q. No.04: When the accident happened and in your opinion what steps should be taken to avoid of such accident in the future?

A. Q.No.04: The accident happened at 10:00 in the morning on 05.11.06 in my opinion a deminer should work in a very normal situation and normal condition. Also, he should have all his equipments and PPE and visor on and he should start the excavation and prodding at the angle of 30 degree. If we apply the above then we will avoid of such accident in the future.

Q. No. 05: Did your deminer had any mental problem, was he supplied with all operational equipments and protective suites like PPE, Helmet and visor. If he was fully equipped then why the accident happened?

A. Q. No.05: The mentioned deminer does not have any mental problem and he was fully equipped with all necessary equipment. About the accident he may have done some mistake that caused the accident.

Q. No.06: Did the deminer use the shovel if yes by which hand he used the shovel and in which angle he was using the shovel?

A.Q. No.06: The mentioned deminer does not have any shovel and he was prodding by the bayonet with the 30 degree angle.

Q.No.07: Is the shovel one of your mine kit tool if yes, why it was not with the deminer?

A.Q.No.07: While we find that the area is short we remove the soft soil form the spot by the shovel.

Statement and Witness Report 5

Nurse Paramedic (experienced since 1999).

Q. No. 01: Where was your location while the accident happened and how long was the distance?.

A. Q. No. 01: I was under the Nurse umbrella under the sun shadow at the distance of 50 meters.

Q.No.02: While the accident happened was there anybody near to the deminer as his side party and was he working or not and after how long did you reach to the patient. What help did you give him?

Q.No. 03: While you reach to the patient how did you find him in which situation was there any working equipment near him?

A. Q. No.03: When I reach to the injured deminer I found him in good situation and after the accident the injured deminer get in to the safe area I saw his mine detector, bayonet and 1.25 Cm stick. Steel stick and the rope around him.

Q. No. 04: Did the deminer use a shovel? if yes, at this moment in which angle he was using the shovel, does he has shovel in his demining kit?

A. Q. No.04: While he was working he does not have shovel but he had shovel in his mine kit.

Q. No. 05: In your opinion what fault is caused the accident and to avoid such accident in the future what do you recommend?

A.Q. No. 05: In my opinion the mine was touched by the bayonet and the mine has exploded in this case first we should find the centre of the signal and then one mine detector head from the end of signal we should put the signal reading marker and then very slow at the angle of 30 degree we should start the excavation.

Analysis

The primary cause of this accident is listed as a “Field Control Inadequacy” because the investigators found that the Victim had been working improperly, failing to pinpoint and mark detector readings adequately, and using a prohibited tool. His field supervisors not only sanctioned his working methods but also tried to conceal them by lying to the investigators. Internal QA/QC methods were deemed inadequate and refresher training required.

The secondary cause is listed as a “Management Control Inadequacy” because the demining group’s senior management had either failed to train its field supervisors appropriately, failed to control them appropriately, or tacitly agreed with their breaches of the approved working methods.