11-26-2006

DDASaccident554

Humanitarian Demining Accident and Incident Database
AID

DDAS Accident Report

Accident details

Report date:	06/02/2008	**Accident number:**	554
Accident time:	11:33	**Accident Date:**	26/11/2006
Where it occurred:	Task # 193, Haji Bashar Village, Dand District, Kandahar Province	**Country:**	Afghanistan
Primary cause:	Field control inadequacy (?)	**Secondary cause:**	Inadequate training (?)
Class:	Tripwire accident	**Date of main report:**	03/12/2006
ID original source:	OPS/03/01-24	**Name of source:**	UNMACA
Organisation:	[Name removed]		
Mine/device:	POMZ AP frag	**Ground condition:**	dry/dusty soft
Date record created:		**Date last modified:**	06/02/2008
No of victims:	1	**No of documents:**	2

Map details

Longitude:		**Latitude:**	
Alt. coord. system:	WGS 84	**Coordinates fixed by:**	GPS
Map east:	E 065 55 05.2	**Map north:**	N 31 22 53.9
Map scale:		**Map series:**	
Map edition:		**Map sheet:**	
Map name:			

Accident Notes

inadequate training (?)

mechanical follow-up (?)

protective equipment not worn (?)

squatting/kneeling to excavate (?)

use of shovel (?)

vegetation clearance problem (?)

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 report is reproduced below, edited for anonymity. The original PDF file is held on record. Text in [ ] is editorial.

Cover letter

To: Chief of Operations, UNMACA Kabul

CC: Deputy Quality Control Manager UNMACA Kabul

From: Area Manager UNAMAC South

Date: December 03, 2006

Sub: DEMINING ACCIDENT INVESTIGATION REPORT

Enclosed please find the investigation report of mine accident occurred to [National demining agency] deminer MCT-09 during the clearance operation in Minefield No 24/2404/0811193 in Haji Bashar village, Dand district of Kandahar province on 26th November 2006.

For further information please refer to the attached documents. With best regards,

Investigation Report of Mine/UXO Accident/Incident

Within the Ground of Demining

Date of report: 26 November 2006

Date of accident: 26 November 2006, 11:30 am

Accident/Incident Location: Haji Bashar, Dand District, Kandahar Province

GR: WGS 84, E 065 55 05.2; N 31 22 53.9; GPS

Device caused the incident/accident: POMZ AP fragmentation mine

The mine was detonated on Deminer while searching the soil which backhoe prepared, with the small shovel.

During the excavating of soil, which prepared (removed soil during the preparation by backhoe) by backhoe the mine was setoff. The deminer has pulled the bushes which were removed by Backhoe from the actual place and the visible wires were connected to the bushes it could be trip wires but the deminer has pulled it carelessly the accident has occurred.)

Description of the accident:

According to [the Victim] deminer that he was searching (removing the soft soil) which backhoe has prepared with a small shovel and he pulled out the bush where barbed wire existed, while he pulled the bushes suddenly an accident occurred.

He got injury to finger of his left hand (fractured), and superficial injury to his left shoulder and injuries to his right thigh above knee.

History of the Minefield:

The minefield is located in Haji Bashar village, Dand district of Kandahar province, which, is an uneven open area with light bushes, the area, is contaminated with Russian AP blast and fragmentation mines for the security of the airfield and most probably contaminated with ERW during the last war.

Task has been technically surveyed by [Specialist national survey agency] on 21, May 2001 and clearance of the above-mentioned task has started on 16 March 2002 by MCT-03 & 9 of [National demining agency], and on 31 July 2003 suspended due to lack of resources. Team has cleared around 23107sqm and during the clearance found 123 AP mines (PMN, PMN2) and 161 different types of UXO.

Clearance of the task has restarted on 2nd September 2006 by MCT-9.

The Victim wore PPE but it was not effective.

Site conditions: The terrain was uneven and open. The soil was soft and dry. The weather was clear and mild. The vegetation was light bushes.

Team Operation outlook: Last refresher/revision course was on 04 November 2006, (One day in Class and the second day in field practically). The team had been at the site for 39 days only 2 sections were working in this task and the other (2) sections of the team were working in other task adjacent to this task. The working hours are 07:30 up to 13:30. In the minefield deminers are changing every 30 minutes and the out going deminers are on rest [they work in two-man teams]. The climate has an average 18 centigrade. The detector in use was the Mil D1. The hand tools were the bayonet and small size shovel (folding). According to the Team Leader and Section Leader the deminer had properly worn PPE, but victim's injuries shows improper use of PPE (no apron) and working with the wrong sitting position. The last period of leave was on 3rd of November 2006.

Medical reaction time: Time to Paramedic was on the accident site: 2 minutes. Time of Paramedic starting treatment to the casualty: 2 minutes. Time for ambulance to drive 43 km from site to hospital: 11:40 am (25 minutes). Last time a CASEVAC drill was done: 5th November 06.

Conclusion:

Supervision: The section leader, ATL and team leader did not closely monitor the deminer during excavation on the backhoe’s prepared soil (seems Deminer was not wearing full PPE and was working in an unapproved prodding position).

The visible wires and bushes were already clear signs for the team leader and section leader to maintain a very close and strict supervision of the parties.

Training: Pulling out the bush which is connected with the barbed wires in the field shows that deminer did not understand how to deal with such an area. He was insisting in his statement that he did the right job (pulling the bush). Furthermore, it is unclear whether there was a proper brief between the changing deminers and the victim's predecessor.

Sitting position of the deminer shows that he did not practice according to SOP during the excavation or removing soil from the area.

The pulling of the bushes and wires shows the de- miner's carelessness and poor technical skill.

Careless[ness] of victim: Deminer has not operated in approved prodding/excavation position (injuries to his left shoulder shows working in a side position). The Deminer has not worn full PPE with apron (as he has got injuries to his thigh).

Proper use of Procedure: The deminer has not used full PPE with apron while he was working on a signal (prodding/excavation).

Recommendations

1. The command group of the team have obligation to control and guide their subordinates (deminers) during field operations especially while they are doing prodding, excavation and pulling.

2. Deminer should fully brief his successor during each change process about the specifications of each area (clearance Lane) and they should consult each other regularly.

3. Deminers are to wear full PPE while entering to operational area.

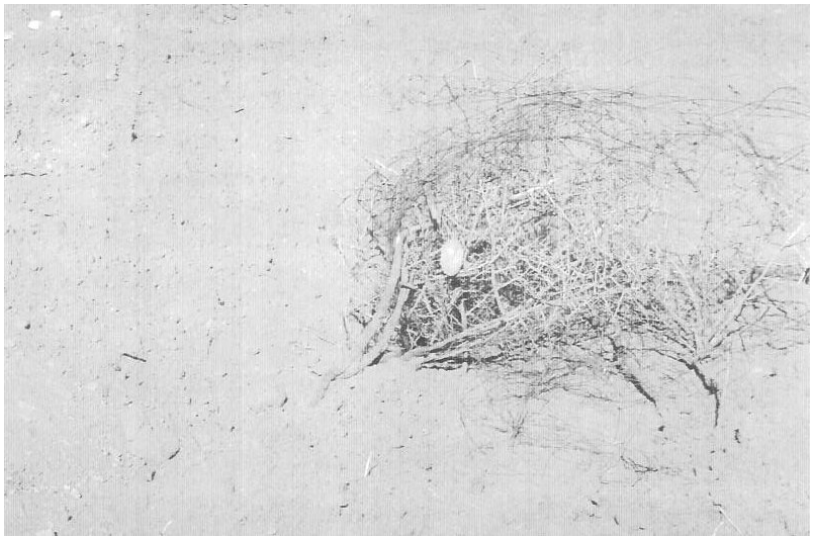
4. All deminers are to work on a signal with an approved position.

5. The deminer should never touch and pull bushes and any suspected wires without instruction of command group (immediate supervisor).

6. A refresher training with a focus on prodding, excavation, pulling and use of PPE should be provided to the team members.

Attachments: [Held on file.]

[Over-exposed and photocopied pictures showed long apron PPE with small blood spots (implying that it was worn), a small thumb, index and forefinger injury on the left hand, a small fragment in the inner thigh, 15cm above the knee, a small injury inside the left forearm and a small fragment on the left shoulder (which would have been exposed if the deminer had been side-on to the detonation. The accident site is shown below.]



Follow-up letter

File: OPS/03/01-24

Date: December 18, 2006

To: See distribution list

From: Acting Chief of Operations UNMACA, Kabul

Subject: Follow up action on de-mining accident happened to the deminer of [National demining agency] MCT-09 in task # 193 of Haji Bashar village, Dand district of Kandahar province

Reference: Demining investigation report dated: December 03, 2006, of UN-AMAC Kandahar.

A demining accident happened on November 26, 2006, at 11:33 in task # 24/2404/0811193 of Haji Basher village, Dand district of Kandahar province, a POMZ mine exploded on [the Victim] the deminer of MCT-09 of [National demining agency], causing fracture/injury to his left finger, superficial injuries to his shoulder and minor injuries to his right thigh.

Contributor factors to the accident:

Lack of supervision by command group: as the deminer was not supervised and controlled during his operations in removing the ripped soil of MDU and bushes with a small folding shovel, and pulling the bushes with his hand not using tripwire feeler prior to pulling bushes, as a result the wire had been pulled and the accident occurred. The type and position of injuries are indicating that he did not wearing full PPE and was working in a not approved prodding position. The visible wires and bushes were the obvious signs for the command group to maintain a very close and constant supervision of the deminers and also to make sure that they are wearing PPE and conducting safe methods.

Lack of training: pulling out the bushes which are connected to barbed wires showing that the deminer did not understand on how to deal such an obstacle, as he insisting in his statement that he did the right job. Further more the setting position of deminer shows as he did not practice according to the SOPs during excavation and removing of soil from the ripped ground of MDU.

Carelessness/not proper use of procedures: as the deminer was not operating in approved prodding/excavating position (injuries to his left shoulder show working in a side position and pulling of bushes without using tripwire feeler.

Recommendations:

i. The [National demining agency] operations should ensure that a proper management of the task is carried out while using combined method of clearance.

ii. 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 usage of safety equipments, b) proper demining tools are being used and c) practicing standard and safe procedures according to SOPs.

iii. The deminers should not touch and pull bushes and any suspected wires without instructions of command group.

iv. The deminers should brief their successors during each changing process.

v. All deminers should work on signals using approved position.

vi. A refresher training to be held for the team members with focus on prodding, excavation, pulling and use of PPE.

The feedback of [National demining agency] is needed as NL than the end of December 2006. Regards,

Distribution List With attachment: AMACs (5), Sub AMAC Gardez, Director [National demining agency]

Less attachment: [All demining groups working in country.]

Victim Report

Victim number: 729

Name: [Name removed]

Age: 22

Gender: Male

Status: deminer

Fit for work: not known

Compensation: Not made available

Time to hospital: 29 minutes

Protection issued: Frontal apron
Long visor

Protection used: Frontal apron, Long visor

Summary of injuries:

minor Arm

minor Leg

minor Shoulder

severe Hand

COMMENT: See Medical report.

Medical report

“fracture/injury to his left finger, superficial injuries to his shoulder and minor injuries to his right thigh.”

Casualty detail: [ID removed.] DoB: 1984: From IMSMA sketch. Right side above knee; upper limbs: lower limbs.

[Over-exposed and photocopied pictures showed a thumb, index and forefinger injury on the left hand, a small fragment in the right inner thigh, 15cm above the knee, a small injury inside the left forearm and a small fragment on the left shoulder.]

CASUALTY REPORT

SERIAL NUMBER: (1900)

[Much of it illegible.]

L. Hand fingers Deep Injuries + L. Shoulder & R.Femur injuries

“We cleaned and washed all injured wounds and dressed them. We splinted fracture bone.”

STATEMENTS

Statement and Witness Report 1: Team Leader

Date: 27/11/06

Question.1: Please introduce yourself?

Answer. 1: I am [Name removed] leader of 3rd section, team No.09 (C) site [National demining agency].

Question. 2: What were you doing when the accident happened?

Answer. 2: I was controlling and monitoring my parties.

Question. 3: What have you carried out after the accident?

Answer. 3: Prior to every thing I instructed to my parties, to stop the activities, and to closed staff to extract the injured deminer, and I immediately passed on the information to the assistant of team and as well as to the team leader.

Question. 4: Deminer has explained against one of our question "that" he had pulled up bushes from littered area with a shovel" that resulted in explosion, according to your understanding, the action has the deminer carried out is correct?

Answer. 4: So, for pulling up the bushes, isn't proper way.

Question. 5: The visible trip wires, and similar to barbed wires and bushes, existed on the ground, what was your instruction to the deminer for demining activity?

Answer. 5: The bushes that hampers activities, should be cut with scissors slowly, and the trip wires after the searching, to be disconnected with a cutter, and there for I always give the mentioned instruction to the deminers.

Question. 6: In spite of PPE, deminer has injured in his left shoulder and right knee, describe the cause please?

Answer. 6: Wounded part of the shoulder is not covered by PPE, and right knee, which is shallow wounded, possibly the apron of PPE rolled down to one side.

Question.7: Prior to the accident, what was your operational action in relevance to the trip wires and bushes existed in the field?

Answer. 7: Previously when we encountered bushes, they are pulled out through a Backhoe machine, adversely we didn't face any trip wires.

Question.8: In accordance to your understanding which actions were to be applied in order to preventing accident?

Answer. 8: If deminers were denied pulling out the bushes till the arrival of the Backhoe machine we would displace the soil with the backhoe and that was possibility of the prevention of the accident.

Question.9: Hasn't you instructed to the deminer on the above-mentioned way, or he himself refused the instruction?

Answer. 9: yes I have instructed the deminer on the mentioned way and the deminer accepted the instruction but mistakenly he did the action.

Question.10: Has you applied any other ways for the clearance of the field are you satisfied of the work of deminer?

Answer. 10: Yes, we applied a Backhoe and I'm satisfied of the work of the deminer.

Statement and Witness Report 2: the Victim

Date 27/11/06

Question.1: Please introduce yourself?

Answer. 1: I am [the Victim] deminer of section three.

Question. 2: What were you doing when incident happened?

Answer. 2: I was pulling out the soil through a shovel that was carried out by a Mechanical Machine.

Question. 3: In accordance to your understanding what kind of thing was exploded?

Answer. 3: POMZ was exploded.

Question. 4: What did you do that caused incident?

Answer. 4: When I pulled up the bushes, incident happened.

Question. 5: Is the action you carried out, properly?

Answer. 5: Yes, I think the action I have carried out is properly.

Question. 6: Are you allowed, to pull out a tripwire or any thing else look like a trip wire?

Answer. 6: No I am not allowed.

Question.7: Was the section leader or team leader aware of the existence of the bushes and wires?

Answer. 7: The section leader and team leader were not aware of the wires, adversely they were aware of the existence of the bushes.

Question.8: Did you get permission of the section leader, pulling out the bushes?

Answer. 8: No, I did not get permission of the section leader, to pull out the bushes, but during that time wires were invisible.

Question.9: Pulling of the bushes and trip wires by hands are dangerous aren't they?

Answer. 9: Yes, pulling out the bushes and trip wires by hands is dangerous.

Statement and Witness Report 3: Team Leader

Date 27/11/06

Question.1: Please introduce yourself?

Answer. 1: I am [Name removed] team leader for the team # 9 of site (C) of [National demining agency].

Question. 2: What were you doing when incident happened?

Answer. 2: I was supervising my two sections related to task #163, in order to collect red and white marks, after the completion and checking of the mentioned task when explosion went off.

Question. 3: What have you done after the accident?

Answer: 3: 1 transmitted the information to FMU team, and then passed on the information to office, to be aware of the accident and for the conduct of optional and last action to be carried out.

Question. 4: Please explain the accident in details?

Answer: 4: The accident happened at 11:30 am on 26/11/06 upon [the Victim], that injured left hand first three fingers, left shoulder, and right knee, and then I took the pictures.

Question: 5: Was the PPE used in a proper way, if yes why the deminer has wounded his shoulder and knee?

Answer: 5: We have not been working with out PPE, and we are not allowed to work with out wearing PPE, I think the deminer pulled out the bushes from his one side after the work out by a backhoe.

Question: 6: Deminer has explained in one of our question "that he had pulled up bushes from littered area with a shovel" that resulted in explosion, actually according to your understanding, the action has the deminer carried out is correct?

Answer: 6: When the deminer sees bushes and wires, should not pull out them, seeing these items he should aware his section accordingly, and those wires and bushes should be cut, or pulled out with the consultation of the section, in order to identify the danger, and we have the proper instruments, which we are cutting the bushes to not hamper the activity of the deminer, and to work on a proper and correct way.

Question: 7: Are you satisfied of the acceptance of the instruction you give to the deminer, and his work out?

Answer: 7: I've never seen any problem in his work, concerning the current work he did, we are dissatisfied of his work, why he did so.

Question: 8: According to you, what was the cause of the accident?

Answer: 8: I the cause of the accident was, bushes that have pulled out, and maybe he was thinking that, the bushes are being turn out by a backhoe, and there is no any thing left and connected to the bushes.

Question: 9: I accordance to your understanding, which actions were to be applied, in order to preventing the accident?

Answer: 9: for the prevention of the accident, the deminer seeing the bushes and the wires, might inform the section leader, and after the consultation of the team leader, he would be able to conduct optional actions, such as pulling out the wires, with occurring no accident.

Question: 10: Are you satisfied of the technical knowledge of the deminer and as well as from the technical knowledge and monitoring of the section leader?

Answer: 10: Yes, we are satisfied of the technical knowledge of the deminer and as well as from the technical knowledge and monitoring of the section leader, but the mistake the deminer made, makes me dissatisfied.

Question: 11: Are you satisfied from the work of the backhoe in the field?

Answer: 11: Yes, we are satisfied from the work of the backhoe; it does work in accordance to the rule and procedures.

Analysis

The primary cause of this accident is listed as a “Field control inadequacy” because the investigators determined that the Victim was working in an unapproved manner and his errors were not corrected. The frontal apron used is extended, but the Victim did not keep it between himself and his work. He may well have been side-on to the detonation because the tripwire ran to a mine that was not in front of him. This would explain the shoulder injury. The inner thigh injury is hard to understand if the apron extension was being worn.

The secondary cause is listed as “Inadequate training” because the investigators determined that the Victim thought he was working appropriately when the accident occurred.

The accident may have been caused by the failure of the mechanical preparation to be consistent. It seems that the backhoe is normally used to rake out the light bush and move it around, pulling any tripwires and detonating mines in the process.

The point of initiation was probably underground, so limiting the spread of fragments and allowing the Victim to escape with relatively minor injuries.