7-24-2006

DDASaccident550

HD-AID
Humanitarian DeminingAccident and Incident Database

DDAS Accident Report

Accident details

Report date:	04/02/2008	**Accident number:**	550
Accident time:	10:30	**Accident Date:**	24/07/2006
Where it occurred:	Task # 663-E-06, Kandahar Air Field, Dand District, Kandahar province	**Country:**	Afghanistan
Primary cause:	Field control inadequacy (?)	**Secondary cause:**	Inadequate equipment (?)
Class:	Excavation accident	**Date of main report:**	02/08/2006
ID original source:	OPS/03/01-12	**Name of source:**	UNMACA
Organisation:	[Name removed]		
Mine/device:	PMN AP blast	**Ground condition:**	dry/dusty hard
Date record created:		**Date last modified:**	04/02/2008
No of victims:	1	**No of documents:**	2

Map details

Longitude:		**Latitude:**	
Alt. coord. system:	UTM	**Coordinates fixed by:**	GPS
Map east:	E 41 77093420	**Map north:**	N 34 90441
Map scale:		**Map series:**	
Map edition:		**Map sheet:**	
Map name:			

Accident Notes

disciplinary action against victim (?)

handtool may have increased injury (?)

inconsistent statements (?)

request for better PPE (?)

squatting/kneeling to excavate (?)

visor not worn or worn raised (?)

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 operation, Senior Operation National Manager, UNMACA Kabul

CC: Deputy Quality Control Manager, UNMACA - Kabul

From: Area Manager UNMACA, Kandahar

Date: August 2, 2006

Sub: Demining Accident Initial Investigation Report

Enclosed Please find the Investigation Report of Mine Accident occurred to [International demining company] Deminer during clearance operation in Minefield No 663-E-06 inside Kandahar Airfield (KAF) in Daman District of Kandahar Province on the 24th July 2006.

For further information please refer to the attached documents.

Investigation Report of Mine/UXO Accident/Incident

Date of report: 25/07/06

Date of accident: 24/07/06 at 10:30

Accident/Incident Location: Kandahar Air Port (KAF), Daman District, Kandahar Province.

GR: UTM; E 41 77093420; N 34 90441; GPS

Device caused the incident/accident: PMN AP blast

During the prodding/excavating the mine was set off.

History of the Minefield: The minefield is located inside the KAF which is a flat open area with light bushes, with planted Russian AP mines (PMN) for the security of the airfield and most probably contaminated with ERW during the last war. A 180,000sqm area is fenced by [International demining company] team with blue Red/white marking and 12m x 550m is marked for the mine belt in the middle surrounding by BAC area.

Description of the accident: According to Mr. [Name removed] Team leader of MCT-05 and Mr. [Name removed] section leader of section No 03 of MCT-05 that [The victim] deminer was doing prodding/excavating on the signal of F3 detector according to the [International demining company] SOP, most probably due to changing/tilting the mine position, it detonated during the prodding/excavation.

Casualty /Causalities detail: [Name removed] DoB: 1975

Injuries: Eyesight of left eye is completely lost and right eye was injured too including injuries on the face.

Equipment/property damage: 1. PPE Vest got slight penetration but the visor looks not damaged. 2. Red baton of the Minelab F3 detector is missing.

Site conditions: The terrain was open and flat. The soil was medium and dry. The weather was clear and hot. The vegetation was light bush.

Team Operation outlook: The last refresher/revision course was on 05/07/06. The team had been at the site for 18 days. The working hours are 06:00 t0 13:00. In the minefield deminers are changing every 30 minutes and the out going de-miners are on rest. Climate is Average 47 centigrade. Detector is use was the MineLab F3. The hand-tool was a prodder and excavator. According to the Team Leader and Section Leader the deminer had properly worn PPE, but victim's injuries shows improper use.

[International demining company] initial accident report describe that the position of the mines in the MF has been changed because of previous clearance, reported by the Army MAC but the investigation team observed that the seventh discovered mine by the [International demining company] team on the 24th July was still in its normal position.

During the investigation it was understood that [International demining company] has set up a different rule that "if the victim was found to be guilty then s/he will not deserve the insurance benefits". Therefore, some difficulties were noticed in information gathering in relation to the incident.

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 500m from site to hospital: 10 minutes. Total CASEVAC time: 14 minutes.

Conclusion:

Supervision: in proper use of PPE the exterior parts of the body could be fully saved except hands, but Deminer's injuries on his face and right lower leg shows improper use of PPE which resulted from weak supervision/controlling.

Careless[ness] of Victim: Injuries to the face and lower leg of the victim show carelessness and improper use of the PPE.

Proper use of procedure (equipments, PPE, etc.)

A: The area is highly fragments contaminated the deminer may have ignored the prodding procedure which had to start toward the signal from 20cm excavation very carefully.

B: Most probably the Deminer did work wearing visor not down or he may not have fixed his visor in the visor guard position as he got injuries on his face.

D: Looking to the crater of incident site (though the investigation team was not allowed to carry camera, GPS or any other investigation tool to the KAF area), it appears that the mine position was not changed and was laid normally on horizontal plane position secondly the seventh discovered mine was also not tilted.

Recommendations

1. Every reading is to be investigated as a mine and therefore, be dealt with full care.

2. Careful appropriate prodding/excavation is to be carried out at all times.

3. Strict supervision by the section leader and team leader must be assured.

4. PPE must be utilized according to the relevant agency's SOPs and AMAS.

5. Mechanical equipment is to be used for the clearance/excavation of the site if it is confirmed that the mines position are changed/tilted in the MF.

6. All rules related to the utilisation and or processing of insurances/benefits must be set in a way that do not create obstacles during the investigation processes.

7. It is recommended that [International demining company] provide helmets to their deminers with blocking visors.

Attachments: [Held on file]

Signed: 26107/06

Follow-up letter

File: OPS/03/01-11

Date: August 15, 2006

To: See distribution list

From: Chief of Operations and Deputy Programme Manag UNMACA, Kabul

Subject: Follow up action on demining accident happened to the deminer of [International demining company] in task # 663-E-06 in Kandahar Air Field, Dand district of Kandahar province.

Reference: Demining investigation report of [International demining company] and UN-AMAC Kandahar dated: August 02, 2006.

A demining accident happened on July 24, 2006 in clearance lane of [the Victim] the deminer of MCT-05 of [International demining company] in task # 663-E-06 of Kandahar Air Field, Daman district of Kandahar province, causing multiple injuries to the deminers' Eyesight, face, right hand and right leg.

The investigation report concluded that, the accident occurred because of poor supervision and control by command group and carelessness of injured deminer. He was conducting prodding/excavation directly from the reading point of the signal and his visor was kept up. He was obviously not controlled by command group.

The investigation report further describes that, the visors of some helmets cannot be locked in down position.

According to [International demining company]'s rule the insurance claim will not be processed if the cause of accident is a mistake of deminers.

Recommendations:

I. Every reading is to be investigated as a mine and to be dealt with full care from the second reading marker.

II. Strict control and supervision by section leader and team leader must be assured.

III. PPE must be utilized according to the SOPs of related Agency and AMAS.

IV. As the majority of accidents happening because of mistakes made by deminers, so all rules related to the utilization and processing of insurance/benefits must be set in a way that do not create obstacles for investigation.

V. The [International demining company] is recommended to provide helmets to their teams with locking visors.

Action has already taken by [International demining company], as refresher training held to the involved and another team working in Kandahar Airfield, covered the following points:

a) The implementation of SOP.

b) The prodding is to be started from the second reading marker (20cm back from the original reading marker)

c) Wearing of PPE and checking of deminers prior to start work.

d) The command group have been reminded of their duties towards ensuring the procedures.

e) And also the section leader [Name removed] has been given a formal written warning with regard to his inattention to the condition of the visors, wearing PPE and poor control.

Distribution List: With attachment: AMACs (5), Sub AMAC Gardez and Director [International demining company]

Follow-up to follow-up letter

File: OPS/03/01-12

Date: 07 September 2006

To: See distribution list

From: Chief of Operations and Deputy Programme Manager UNMACA, Kabul

Subject: Amendment in the Follow up Action Letter OPS/03/01-11 dated Aug 15, 2006

Reference: Demining investigation report of -AMAC Kandahar dated: August 02, 2006 with regard to the demining accident which happened in task # 663-E-06 on Kandahar Air Field.

The statement and recommendation below were communicated via the reference letter:

a. According to [International demining company]'s rules the insurance claim will not be processed if the cause of the accident is a mistake of the deminers

b. As the majority of accidents are happening because of mistakes made by deminers, so all rules related to the utilization and processing of insurance/benefits must be set in a way that do not create obstacles for investigation.

We would like to acknowledge that there was obviously a misunderstanding on behalf of the investigation team with regard to the processing of claims by [International demining company] as all accident claims are processed irrespective of apportioned blame, also there is no relation between the [International demining company] staff insurance claims with the cause of the accidents.

Distribution List: AMACs (5), Sub AMAC Gardez and Director [International demining company], [All demining groups in country.]

Victim Report

Victim number: 724

Name: [Name removed]

Age: 31

Gender: Male

Status: deminer

Fit for work: not known

Compensation: Not made available

Time to hospital: 14 minutes

Protection issued: Frontal apron
Long visor

Protection used: Frontal apron, Long visor worn raised

Summary of injuries:

severe Face

severe Hand

severe Leg

AMPUTATION/LOSS: Eyes

COMMENT: See Medical report.

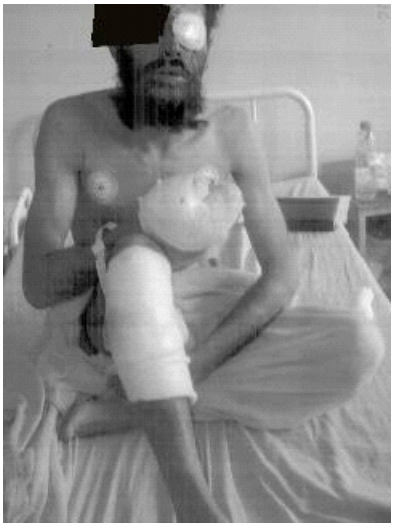
Medical report

Casualty data [from IMSMA form]

DoB: 1975

Eyesight damage both eyes: head/Neck above lips. Upper limbs. Lower limbs.

A sketch showed injured lacerations on face and eyes. Injured on right hand. Injured below right knee.



STATEMENTS

Statement and Witness Report 1: Site Supervisor

Date: 25.07.06

Question No 1: Please describe who were involved in the accident?

Answer No 1: [the Victim] deminer is involved.

Question No 2: When the incident occurred what was the deminer doing?

Answer No 2: Deminer was doing prodding when the incident occurred.

Question No 3: In which part the deminer has gotten the injuries?

Answer No 3: The deminer has received injuries on his eyes and face.

Question No 4: Has the deminer used the PPE, when the accident occurred?

Answer No 4: Yes the de-miner had worn the PPE.

Question No 5: Has the deminer used the PPE in a proper way?

Answer No 5: Yes the deminer has worn the PPE.

Question No 6: If the deminer has used PPE in a proper way, why the deminer has got injuries on his face and eyes?

Answer No 6: Because of the pressure resulted in from the explosion of the mine the helmet and the visor went up and therefore he got injuries.

Question No 7: Has in the past occurred the same kind of incidents that injured the eyes and the face of the deminer?

Answer No 7: In the past I have never seen such kind of incidents that caused to hit up the visor.

Question No 8: Are you satisfied from the control and work of your team leader and section leader?

Answer No 8: Yes generally I'm satisfied of their work.

Question No 9: Paying attention to answer no 6 you are less satisfied from the quality of the visors, how about the utilization from the same visors in future.

Answer No 9: The utilization of those visors equipped with blocked clip is preferable.

Question No 10: Are their any other visors having the above-mentioned quality, if yes what is your opinion and decision?

Answer No 10: There are some visors in our team which in near future they could be changed.

Question No 11: Please write your opinion concerning the prevention of such kind of incidents?

Answer No 11: To prevent such kind of incidents we should be more careful.

Statement and Witness Report 2: Team Leader

Date: 25/07/06

Activity at time of accident: Hearing suddenly explosion, I stopped the activities and informed the relevant doctor and ambulance car to be prepared and came to the injured person then myself has gone towards the explosion site and all the staff was led to rest at a safe place.

Question No 1: Please describe how the accident occurred and who were the victims?

Answer No 1: The explosion happened suddenly and a deminer named [the Victim[injured, he was prodding/excavating of the reading point when explosion occurred.

Question No 2: Please describe the cause of the incident?

Answer No 2: Possibly the position of the mine was changed.

Question No 3: In according to your opinion why the position of the mine changed?

Answer No 3: It seems to me that, the mine was laid many years before, and from other side an armour vehicle may hit this mine.

Question No 4: Possibly there would be more mines that, their position have been changed, according to you how should be cleared the remaining area?

Answer No 4: Concerning the issue we would like to work under the instruction of our boss.

Question No 5: Report from your side says that, the deminer has got injuries on the eyes and face did the deminer use the PPE if yes why he received injuries on the face and on the eyes?

Answer No 5: Yes the deminer has worn the PPE but the visor the deminer has used was without having blocking clip and therefore during the explosion of the mine pressure kept up the visor and therefore he got injuries.

We have been using two kinds of visors equipped with blocking clip and without having blocking clip during the explosion he was using the visor without having blocking clip, caused injuries.

Question No 6: Are there any other visors having the above mentioned quality, if yes what is your opinion and decision concerning the utilization of such visors in the future?

Answer No 6: There are some visors in our team if they could be changed with having blocking clip would be better.

Question No 7: Are you satisfied from the work of your section leaders?

Answer No 7: I'm satisfied of the work of the section leader.

Question No 8: Please write your opinion concerning the prevention of such kind of incidents?

Answer No 8: To prevent thus kind of incidents refresher trainings should he conducted.

Question No 9: How long before the refresher training has been conducted to this team, and did the injured deminer take part in the training?

Answer No 9: The training conducted on 25.06.06 and the injured deminer took part in the training.

Statement and Witness Report 3: Section Leader

Date: 25/07/06

Activity at time of accident: While the incident happened I stopped the activities of the section and assigned two de-miners for one of them to check surrounding area of the injured deminer

and for the other to bring down the stretcher from the Ambulance and shifted the injured on to the Ambulance

Question No 1: Please describe which part of the deminer has injured?

Answer No 1: The deminer has gotten injuries on the face.

Question No 2: When the incident occurred what was the deminer doing?

Answer No 2: Deminer was doing prodding when the accident occurred.

Question No 3: Are you satisfied from the previous work of the deminer?

Answer No 3: Yes, we are satisfied of the previous work of the deminer.

Question No 4: Has the deminer used the PPE, if yes why he got injuries on his eyes and face?

Answer No 4: Yes the deminer had worn the PPE but during explosion the heavy pressure hit on the visor, so the visor came up and opened.

Question No 5: Taking into account the quality of the existing visors, should be they used in future?

Answer No 5: The visors having equipped with the blocking clip could be used in the future.

Question No 6: To prevent the same kind of injuries, what is your opinion?

Answer No 6: To prevent the same kind of injuries the visors equipped with the blocking clip should be utilized.

Question No 7: Please express the answer to question number two, how the incident occurred and what was the cause of the incident?

Answer No 7: In the past inside the minefield the roller machine has used and therefore the position of the mine changed.

Question No 8: To prevent the same kind of incidents please write your opinion?

Answer No 8: To prevent such kind of incidents de-miners should work more carefully and the safety procedures should be applied.

Statement and Witness Report 4: the Victim

Date: 26/07/06

Question No 1: Please introduce yourself?

Answer No 1: I'm [Name removed] residence of Kandahar related to team No: 5 Section No 3.

Question No 2: What were you doing when the incident occurred?

Answer No 2: While I was excavating with a small shovel (Rumbay more like an Adze).

Question No 3: Have you ever worn PPE during excavation?

Answer No 3: Yes, I have worn the PPE during excavation.

Question No 4: If you have worn on PPE why you got injuries on your face and your eyes?

Answer No 4: At that time my friend called me that the time for your work is over and I told him in a few minutes I'm going to leave the site and I again recommenced my work when the

incident occurred, so for the visor it was empty of blocking clip, and during explosion it opened up and I got injuries on my face and eyes.

Question No 5: Please describe what was the cause of the incident?

Answer No 5: The incident shows that the position of the mine was changed during my excavation with a small (Rambai or Adze) the mine triggered.

Analysis

The primary cause of this accident is listed as a “Field control inadequacy” because the Victim was working with his Visor raised and his error was not corrected.

Note: In a blast event, there is nothing to raise the visor until the fragments strike, closely followed by the blast wave. A loose visor in a down position is often torn off by the passage of the blast-wave, but it could not be raised before the fragments struck. In this case, the deminers were inventing an impossible phenomenon as an excuse because they had been told that the Victim would not get his insurance if he was at fault. That the deminers had been frightened with this kind of threat illustrates a significant “Management control inadequacy” that has often been tried by demining groups, and is always quickly dropped. The deminer with a raised visor is, by definition, being poorly supervised, so is not the only one at fault.

In this case, the deminer may have raised his visor because it was in poor condition and hard to see through (some visors needed to be replaced). A picture of the Visor is shown below. Whether it sustained any damage in the accident is unknown, but the visor shown would be hard to see through.

The secondary cause is listed as inadequate equipment because the Victim’s hand tool was bizarrely inappropriate, and neither designed for purpose nor blast-resistant. A picture is shown below.