

DDAS Accident Report

Accident details

Report date: 17/05/2006	Accident number: 166
Accident time: 07:40	Accident Date: 28/11/1997
Where it occurred: Mok Heoun, Road 502, Banteay Meanchey Province	Country: Cambodia
Primary cause: Field control inadequacy (?)	Secondary cause: Inadequate equipment (?)
Class: Missed-mine accident	Date of main report: [No date recorded]
ID original source: none	Name of source: CMAC
Organisation: Name removed	
Mine/device: Type 72 AP blast	Ground condition: bushes/scrub electromagnetic grass/grazing area hard
Date record created: 14/02/2004	Date last modified: 14/02/2004
No of victims: 1	No of documents: 2

Map details

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

Accident Notes

inadequate metal-detector (?)
partner's failure to "control" (?)
no independent investigation available (?)
inadequate investigation (?)
disciplinary action against victim (?)

Accident report

At the time of the accident the demining group operated in a two-man drill whereby one deminer used the detector and marked any signals while the other looked for tripwires, cut undergrowth and excavated any detector readings. A third deminer may have been resting [it is not known whether the group had changed from three-man to two-man teams at this time].

A brief internal accident report was located in January 1999 at the country MAC and translated from the original Khmer. The following summarises its content.

The weather was dry. The ground in the mined area was hard and clearance was complicated by the presence of bamboo and thick grass. The last mine in the area had been found eight days before and was also a Type 72a. The victim was the detector man in a team starting a new lane adjacent to a cleared lane. The two men in the team changed roles each day. On the day of the accident the victim and his partner went to their umbrella [the rest point] without rechecking the safe lane as they went.

The victim's partner placed a start stick about 25cm away from the marked edge of the safe lane from which they were advancing, and a second stick half a meter in front of that (so marking the working area). The victim checked his detector, then started to sweep the first 50cm in front of the start stick. This took about one minute. On finding the area clear he bent down to pick up the start stick and moved it forward, taking a step forward as he did so. He stepped on a mine that had been in front of or beneath the stick marking the start line [so in an area he had not just checked with the detector]. The time was 07:40.

His right foot was damaged. He was taken by ambulance to hospital and arrived at 09:30.

The detector was checked by the Supervisor afterwards. The detector ("MineLab F1A4") was not considered capable of reliably finding the Type 72a mine in the prevailing mineralised ground.

Conclusion

The investigators concluded that the original safe lane should have been cleared beyond the lane markings, so the victim should have already searched the place where the mine was. He should have checked it again by started searching from behind the start of lane marker but did not, (so was in breach of SOPs).

Recommendations

The investigators recommended that the victim and his partner should have one month's salary stopped as punishment for breaching SOPs.

Victim Report

Victim number: 211	Name: Name removed
Age:	Gender: Male
Status: deminer	Fit for work: not known
Compensation: not made available	Time to hospital: 1 hour 35 minutes
Protection issued: Safety spectacles	Protection used: not recorded

Summary of injuries:

INJURIES

minor Hand

minor Legs

AMPUTATION/LOSS

Leg Below knee

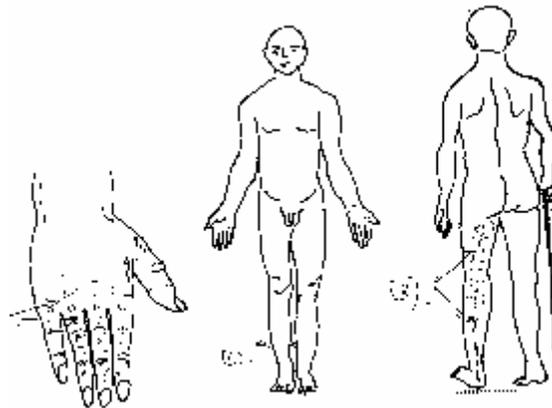
COMMENT

See medical report.

Medical report

A brief medical report in Khmer was found. It stated that the victim arrived in hospital at 09:15 [conflicting with 09:30 in the Accident report] and that his right leg had been amputated below the knee. His right thigh was also injured and his left leg had suffered scattered fragmentation wounds.

This medical sketch accompanied a compensation claim.



Analysis

The primary cause of this accident is listed as a "*Field control inadequacy*" because it seems that the deminers did not work in accordance with their SOPs and the error was not corrected.

It seems that either the mine was missed at the end of the last working day, or the cleared area was assumed to have been greater than it was at the start of the new day (as implied by the victim's partner moving the base-stick forward). In this case the mine could have been missed because the detector was never used over it. However, the investigators found that the detector could not reliably find the mine in the prevailing soil conditions. If this was the case it would indicate a gross failing of field control because supervisors should have checked detectors and instigated other clearance routines if the detectors were inadequate. The secondary cause is listed as "*Inadequate equipment*".

The punishment of the victim for the failings of supervisors occurs in other accidents involving this demining group.

Related papers

The file included a sketch of the site showing the cleared area and a row of mines, including the one involved in the accident. All the mines were in areas that had not been cleared, so presumably were found after the one involved in this accident. No other mines were marked in the cleared area, [so it seems that the deminers may have had false confidence that the area was safe].

Other photographs showed the victim with his right leg amputated half way between knee and foot and his left leg swathed in bandages to above the knee.

Another photograph showed a MineLab detector with the head broken off, but the cable still attached. The investigation did not make it clear whether this was the detector that was found incapable of detecting the target mine.