8-25-1999

DDASaccident256

Humanitarian Demining Accident and Incident Database
AID

DDAS Accident Report

Accident details

Report date:	18/05/2006	**Accident number:**	256
Accident time:	13:40	**Accident Date:**	25/08/1999
Where it occurred:	Plowshare Minefield, Cordon Sanitaire	**Country:**	Zimbabwe
Primary cause:	Field control inadequacy (?)	**Secondary cause:**	Inadequate training (?)
Class:	Excavation accident	**Date of main report:**	[No date recorded]
ID original source:	none	**Name of source:**	KMS
Organisation:	Name removed		
Mine/device:	M969 AP blast	**Ground condition:**	woodland (bush)
Date record created:	18/02/2004	**Date last modified:**	18/02/2004
No of victims:	1	**No of documents:**	1

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

no independent investigation available (?)

handtool may have increased injury (?)

inadequate medical provision (?)

partner's failure to "control" (?)

squatting/kneeling to excavate (?)

visor not worn or worn raised (?)

inadequate area marking (?)

inadequate training (?)

Accident report

At the time of this accident the demining company operated in two-man teams using a one-man drill. One deminer looked for tripwires, cut undergrowth, used the detector and excavated finds while the other watched from a safe distance and "controlled" him. The group issued frontal protection and their drills assumed that the deminer would kneel or squat while excavating.

An internal Accident report was made available by the demining group in December 1999. The report was dated 3rd August 1999,which was before the accident occurred - so either the date of the report or the accident date was an error. The following summarises the content of the report.

The victim was engaged in widening a breaching lane at 13:40 when the accident occurred. He was not using approved marking methods [using none] and the accident occurred 3 metres in front of his base stick. His equipment had been removed from the site but witnesses confirmed that the victim's visor and prodder were some metres behind the victim [visor not worn] and that the handle of his trowel was a metre from the accident site.

At the time of the accident, the victim's partner had left the site to fetch more area-marking sticks.

Immediately after the accident the victim was recovered from the unmarked area and his "boots, watch and fragmentation vest" removed. At this time "the casualty was struggling so restraint was necessary". Field medics treated the casualty and brought him to the ambulance at the start of the breach. The ambulance had entered the breach and had to "conduct numerous turns within the breach to turn around".

All clearance at the site was halted.

The investigators found no evidence of excavation around the blast crater, which was "cone shaped and symmetrical". The shaft of his trowel was in the crater. They stated that "the blade of the trowel was not found and is more than likely the instrument which caused the injuries".

A chronology of events related that the accident occurred at 13:40, the ambulance left for the air strip for Medevac at 14:32 and the Medevac aircraft left taking the victim to hospital at 16:16, [more than 2 ½ hours after the accident occurred].

The investigators decided that the mine was an M969, although the type was "not confirmed".

Conclusions

The investigators concluded that the victim was working without a visor, not marking correctly and had used "incorrect excavation methods". They found that his partner "was not present to correct any faults". In their opinion "complacency had set in" and the victim was taking short cuts. They decided that immediate treatment and medevac was "adequate" but that too many people had been involved in the reaction. Casualty recovery had been "conducted without control, placing further risk on those persons present".

Recommendations

The investigators recommended that a seven day period of complete re-training should start, and that deminers should have warnings about complacency and the need to work to SOPs stressed. They stated that "all personnel will be evaluated. All re-test failures will be released from the project. For all personnel who pass the evaluations, and further breaches of safety will result in instant dismissal".

Further recommendation included re-training in Medevac procedures for field supervisors, the rule that medics should never enter a breach that is only a meter wide (in these cases the Supervisor and Paramedic must recover the casualty) and that ambulances should not enter breaches.

Victim Report

Victim number:	330	**Name:**	**Name removed**
Age:		**Gender:**	Male
Status:	deminer	**Fit for work:**	DECEASED
Compensation:	not made available	**Time to hospital:**	more than 2 hours 40 minutes
Protection issued:	Frontal apron Long visor	**Protection used:**	Frontal apron

Summary of injuries:

INJURIES

severe Face

severe Hand

FATAL

COMMENT

See medical report.

Medical report

A "Preliminary medical report" was made available by the demining group in December 1999. It stated that between 14:00 and 14:25 the victim was attended at the site hospital, then sent to Mukumbura airstrip for medevac. The vehicle broke down at Msingwa river and the victim was transferred to an accompanying vehicle. The evacuation aircraft arrived at 15:45 and left for the capital city at 16:16.

The "casualty sustained severe deep maxillofacial injury with right hand second degree burns". "2-way intravenous fluid giving lines established at time of handing over casualty".

In an interview with senior staff at the demining group in December 1999, they said that the victim had died about a month after the accident while still in hospital. His demining tool (trowel) had struck his face side-on and “cut it in half”.

Analysis

The primary cause of this accident is listed as a *"Field control inadequacy"* because the victim was in breach of many basic SOPs and his errors went uncorrected. The decision of the management group to impose re-training and testing implied that the urgent need for improvement was recognised, although local employment laws may have made it difficult to implement. It is not known whether the recommendations were carried out. The secondary cause is listed as *“Inadequate training”*.

In an interview with representatives of the demining group's management in December 1999, the researcher was told that the head of the tool was believed to have struck the victim in the face and caused injuries that were eventually fatal.

The deminer's trowel was a locally made item with a steel handle welded to a steel blade. The picture above shows one of the group's trowels after a similar accident. In this case the trowel is still in one piece although badly deformed.